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NAS JACKSONVILLE
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REMEDIAL INVESTIGATION REPORT FOR POTENTIAL SOURCE OF CONTAMINATION 45/OPERABLE UNIT 9 (OU 9) BUILDING 200 WASHRACK NAS JACKSONVILLE FL

6/1/2013

TETRA TECH

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-04-D-0055

Rev. 2
June 2013

Remedial Investigation Report

Potential Source of Contamination 45

Naval Air Station Jacksonville
Jacksonville, Florida

Contract Task Order 0112

June 2013

NAVFAC
Naval Facilities Engineering Command
NAVFAC SOUTHEAST
NAS Jacksonville
Jacksonville, Florida 32212-0030

TETRA TECH

Rev. 2
JUNE 2013

REMEDIAL INVESTIGATION REPORT
FOR
POTENTIAL SOURCE OF CONTAMINATION 45

NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Naval Facilities Engineering Command
Southeast
Building 135, NAS Jacksonville
Jacksonville, Florida 32212-0030

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CONTRACT NUMBER N62467-04-D-0055
CONTRACT TASK ORDER 0112

JUNE 2013

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PROFESSIONAL GEOLOGIST CERTIFICATION

This Remedial Investigation Report was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared in general conformance with the Requirements of the Comprehensive Environmental Response and Compensation Liability Act. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

June 6, 2013
Richard D. McCann, P.G.
Florida License Number PG-2358

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ACRONYMS AND ABBREVIATIONS

°C	degree Celsius
°F	degree Fahrenheit
µg/kg	microgram per kilogram
µg/L	microgram per liter
µg/m^3	micrograms per cubic meter
ABB-ES	ABB Environmental Services, Inc.
ASL	above screening level and site background
atm-m3/mol	Atmosphere cubic meters per mole
ATSDR	Agency for Toxic Substances and Disease Registry
BAP	benzo(a)pyrene
BCF	bioconcentration factor
bgs	below ground surface
BKG	Less than background concentration
BSL	Below COPC screening level
CLP	Contract Laboratory Program
COC	chemical of concern
COPC	chemical of potential concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CTL	Cleanup Target Level
CTO	Contract Task Order
DL	detection limit
DO	dissolved oxygen
DoD	Department of Defense
DOT	Department of Transportation
DPT	direct push technology
DQI	data quality indicator
EC	exposure concentration
EPC	exposure point concentration
ERA	Ecological Risk Assessment
ESV	Ecological Screening Value
EU	exposure unit
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Residual Petroleum Organic
FS	Feasibility Study
GCTL	Groundwater Cleanup Target Level

ACRONYMS AND ABBREVIATIONS (Continued)

GPS	global positioning system
HHRA	Human Health Risk Assessment
HI	hazard index
HQ	hazard quotient
IDW	investigation-derived waste
ILCR	incremental lifetime cancer risk
Katahdin	Katahdin Analytical Services, Inc.
Kd	Soil-water distribution
Koc	Organic carbon partition coefficient
Kow	Octanol/water partition coefficient
L/kg	liters per kilogram
LOQ	Limit of Quantitation
m^3/kg	cubic meter per kilogram
MCL	maximum contaminant level
mg/cm^2	milligram per square centimeter
mg/kg	milligram per kilogram
mg/L	milligram per liter
MI	mobility index
mL/gm	milliliters per gram
mm Hg	millimeters mercury
MNA	monitored natural attenuation
msl	mean sea level
NAS	Naval Air Station
NAT	Navy Aviation Trade
NAVFAC SE	Naval Facilities Engineering Command Southeast
NIRP	Navy Installation Restoration Program
NOAA	National Oceanic and Atmospheric Administration
NTX	No toxicity criteria
NUT	Essential nutrient
ORP	oxidation-reduction potential
OU	Operable Unit
PAH	polycyclic aromatic hydrocarbon
PAL	Project Action Limit
PARCCS	precision, accuracy, representativeness, completeness, comparability, and sensitivity
Partnering Team	NAS Jacksonville Installation Restoration Partnering Team
PCB	polychlorinated biphenyl

ACRONYMS AND ABBREVIATIONS (Continued)

ppt	part per thousand
PQL	practical quantitation limit
PSC	Potential Source of Contamination
PSL	project screening level
PVC	polyvinyl chloride
QC	quality control
QSM	Quality Systems Manual
RBSSL	risk-based soil screening level
RI	remedial investigation
RPD	relative percent difference
RSL	Regional Screening Level
SAP	Sampling and Analysis Plan
SCTL	Soil Cleanup Target Level
SI	site investigation
SIM	selected ion monitoring
SOP	Standard Operating Procedure
SRE	Screening Risk Evaluation
SSL	Soil Screening Level
SVOC	semivolatile organic compound
TAL	target analyte list
TCL	target compound list
TCLP	Toxicity Characteristic Leaching Procedure
TEF	toxicity equivalency factor
TPH	total petroleum hydrocarbons
UCL	upper confidence limit
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey
VOC	volatile organic compound
VP	vapor pressure

EXECUTIVE SUMMARY

Tetra Tech completed a remedial investigation (RI) at the Building 200 Wash Rack Disposal Pit (Potential Source of Contamination [PSC] 45) in accordance with the *Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) for Site Assessment Activities at Potential Source of Contamination (PSC) 45* (Tetra Tech, 2011a). The purpose of this RI at PSC 45 is to develop data to enable the Naval Air Station (NAS) Jacksonville Installation Restoration Partnering Team (Partnering Team) to (a) determine the nature and extent of contamination at PSC 45, (b) evaluate human health risks through a Human Health Risk Assessment, (c) evaluate risk to ecological receptors through an Ecological Risk Assessment (ERA), and (d) determine the follow-up activities that may be required in subsequent remedial activities.

The former Building 200 Wash Rack Disposal Pit (PSC 45) is located on the NAS Jacksonville facility. Building 200 is a ground support equipment facility and is located on the northern industrialized portion of NAS Jacksonville near the flight line. A covered wash rack with a floor drain leading to an oil/water separator (located beneath the wash rack) was located in a small room (the Wash Rack Room) attached to the northwestern corner of Building 200. An overflow pipe from the oil/water separator was connected to a cylindrical concrete disposal pit located approximately 20 feet east of the Wash Rack Room. The pit was a French drain design that leached directly into the subsurface soil. The pit was gravel filled with an earthen bottom and a concrete lid approximately 4 feet in diameter. A small grassy area surrounded the former disposal pit, and a paved parking lot is located north of this grassy area. The Building 200 Wash Rack Disposal Pit was identified as PSC 45 by NAS Jacksonville personnel in 1991.

The RI field work was conducted in two phases. Phase I was initiated in April 2011, and Phase II was initiated in June 2011. In Phase I, four permanent groundwater wells were installed and sampled for a broad range of analytes (i.e., target compound list [TCL] volatile organic compounds [VOCs]), TCL semivolatile organic compounds, including low-level polycyclic aromatic hydrocarbons [PAHs], TCL polychlorinated biphenyls [PCBs], total petroleum hydrocarbons [TPH] with carbon ranges from C_{08}-C_{40}, and target analyte list metals. After reviewing the results of the Phase I sampling effort, the Partnering Team decided in Phase II to (a) collect soil samples from one depth interval (0.5 foot below ground surface [bgs] to 2.5 feet bgs) associated with 11 soil borings and (b) collect groundwater samples from four depth intervals (12 to 16 feet bgs, 20 to 24 feet bgs, 40 to 44 feet bgs, and 60 to 64 feet bgs) associated with 11 different locations. The Phase II soil samples were analyzed for the Phase I set of target analytes. The Phase II groundwater samples were analyzed for VOCs.

The soil and groundwater analytical results were compared against project screening levels (PSLs) for human health that incorporated NAS Jacksonville basewide background concentrations for metals and

risk-based screening criteria. Table ES-1 summarizes the exceedances of PSLs for soil and groundwater.

A review of the data indicates that soils in the source area are impacted by metals and PAH consitutents exceeding PSLs. The levels and extent of soil impacts appear to be restricted to the immediate vicintiy of the disposal pit area; however, full delination was not achieved via the sampling effort, and some limited sampling may be required prior to preparation of a remedial design. It is likely that a limited soil removal would be successful in removing soil impacts and limiting the need for soil land use restrictions.

Groundwater in the immediate area of the source area is impacted by manganese, PAH consitutents, and VOC constituents, all at relatively low levels in comparison to PSLs. VOC constituents, however, were noted over a broader area, and it does not appear that soils remain as a source for continued leaching impacts by VOC consituents to groundwater. Sampling of areas to the north and northeast of the source area indicated the likely presence of another source of groundwater contamination that appears to be unrelated to PSC 45. A review of the Phase II data from the areas to the north and northeast (DPT 14, DPT 21, DPT 13, DPT 22, and DPT 12) shows that those results are distinctly different from the chemical profiles of other sampling locations at PSC 45. For example carbon tetrachloride, chloroform, methylene chloride, and trans-1,2-dichloroethene are not detected in the any of the sampling locations south of DPT 12. These results suggests that a secondary source of contamination originating somewhere immediately north of PSC 45 is likely to be responsible for impacts to groundwater in that area. Based on review of this information, the Partnering Team determined that additional investigation into this possible second source area should be conducted as a separate site and that further investigation of the area to the north and northeast of PSC 45 is not warranted as part of the PSC 45 RI. A data review by the Partnering Team lead to a decision to conduct additional investgation of this area as a separate site. Although, data from this area are presented in this report, a separate RI effort will be conducted in the future once funding is obtained to address these concerns.

Human Health Risk Screening Evaluation Summary

Risks for exposure by hypothetical future residents to soil, groundwater, and inhalation of VOCs present in groundwater as a result of vapor intrusion at PSC 45 were evaluated. In addition, risks associated with exposure to soil and vapor intrusion at PSC 45 by industrial workers and risks associated with exposure to soil by maintenance workers, construction workers, and adolescent trespassers were evaluated.

TABLE ES-1

DETECTED ANALYTES EXCEEDING PSLs
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Analyte	Phase I Groundwater	Phase II Groundwater	Phase II Soil
METALS			
ARSENIC	-	- -	*
CADMIUM	-	- -	*
CALCIUM	-	- -	*
CHROMIUM	-	- -	*
MAGNESIUM	-	- -	*
MANGANESE	*	- -	-
TPH			
TPH (C_{08}-C_{40})	*	- -	-
PCBs (None Exceeded a PSL)			
PAHs			
1-METHYLNAPHTHALENE	*	- -	-
2-METHYLNAPHTHALENE	*	- -	-
BAP EQUIVALENT-HALFND	*	- -	*
BENZO(A)ANTHRACENE	*	- -	*
BENZO(A)PYRENE (BAP)	*	- -	*
BENZO(B)FLUORANTHENE	-	- -	*
DIBENZO(A,H)ANTHRACENE	-	- -	*
INDENO(1,2,3-CD)PYRENE	-	- -	*
NAPHTHALENE	*	- -	-
SVOCs			
1,1-BIPHENYL	*	- -	-
BIS(2-ETHYLHEXYL)PHTHALATE	-	- -	*
VOCs			
1,1,2-TRICHLOROETHANE	-	*	-
1,1-DICHLOROETHANE	*	*	-
1,1-DICHLOROETHENE	*	*	-
1,2-DICHLOROETHANE	*	*	-
1,4-DICHLOROBENZENE	*	-	-
BENZENE	*	*	-
CARBON TETRACHLORIDE	-	*	-
CHLOROFORM	-	*	-
CIS-1,2-DICHLOROETHENE	*	*	-
ETHYLBENZENE	*	-	-
ISOPROPYLBENZENE	*	-	-
METHYLENE CHLORIDE	-	*	-
TETRACHLOROETHENE	*	*	-
TRICHLOROETHENE	*	*	-
TOTAL XYLENES	*	-	-
VINYL CHLORIDE	*	*	-

Notes:

* = Maximum detected concentration exceeded the applicable PSL.

- = Maximum detected concentration did not exceed the applicable PSL.

- - = Not analyzed.

BAP equivalent-HalfND is used to determine if carcinogenic PAHs (cPAHs) collectively exceed a PSL.

- Cumulative carcingenic risks for residential exposure to soil, groundwater, and inhalation of VOCs associated with vapor intrusion exceeded the United States Environmental Protection Agency's (USEPA's) target risk range of 10^{-4} to 10^{-6} and the Florida Department of Environmental Protection's (FDEP's) target risk level of 10^{-6}. Cumulative noncarcinogenic risks for residential exposure to soil, groundwater, and inhalation of VOCs associated with vapor intrusion exceeded the USEPA's and the FDEP's target Hazard Index (HI) of 1.

- Carcinogenic risks for residential exposure to groundwater were greater than the USEPA's target risk range and the FDEP's target risk level. Noncarcinogenic risks for residential exposure to groundwater exceeded the USEPA's and the FDEP's target HI.

- Carcinogenic risks for residential exposure to soil were greater than the FDEP's target risk level, but were within the USEPA's target risk range. Noncarcinogenic risks for residential exposure to soil were less than the USEPA's and the FDEP's target HI.

- Carcinogenic risks for residential exposure to VOCs through vapor intrusion exceeded the FDEP's target risk level, but were within the USEPA's target risk range. The noncarcinogenic risks associated with vapor intrusion for the hypothetical resident were equal to the USEPA's and the FDEP's target HI.

- Carcinogenic risks for the industrial worker to VOCs through vapor intrusion and the construction worker were within the USEPA's target risk range. Noncarcinogenic risks for the industrial woker were less than the USEPA's target HI.

- Carcinogenic and noncarcinogenic risks for the maintenance worker and the adolescent trespasser, potentially exposed to chemicals of concern (COCs) contained in groundwater, were less than the USEPA's target risk range and target HI, respectively.

- Carcinogenic and noncarcinogenic risks for the industrial worker, maintenance worker, construction worker, and the adolescent trespasser, potentially exposed to COCs contained in groundwater, were less than the FDEP's target risk level and HI, respectively.

COCs are those contaminants in a media of concern that contribute to risks greater than the USEPA's target risk range, the FDEP's target risk level, or the USEPA's and FDEP's target hazard quotient of 1 in a specific medium of concern or are present at concentrations exceeding applicable or relevant and appropriate requirements, such as the maximum contaminant level (MCL) in groundwater. For PSC 45, a

COC has a risk level in a medium of concern greater than a cancer risk level of 10^{-6} or a HI of 1.0 or it exceeds the MCL or Groundwater Cleanup Target Level (GCTL).

- The COCs in groundwater are, manganese, TPH, carcinogenic polycyclic aromatic hydrocarbons (cPAHs), benzo(a)anthracene, benzo(a)pyrene (BAP), naphthalene, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, isopropylbenzene, tetrachloroethene, trichloroethene, vinyl chloride, and xylene.

- Ethylbenzene was detected one time at a concentration groundwater corresponding to risks exceeding the USEPA or FDEP targets, but the maximum detected concentration was less than the USEPA MCL and FDEP GCTL.

- Vinyl chloride concentrations in groundwater also corresponded to risks greater than targets and its concentrations were less than the MCL or GCTL, but it is also a degradation product of tetrachloroethene and trichloroethene; therefore, it was retained as a COC.

- Manganese, isopropylbenzene, and xylene were present at concentrations exceeding the MCL or GCTL, but the corresponding risks were less than target risk levels. Because of their exceedance of the MCL or GCTL, they were retained as COCs.

The carcinogenic risk for residential exposure to soil exceeded the FDEP's target risk level. Based upon the calculated BAP equivalent values, the COCs for soil are the cPAHs.

The carcinogenic risk for vapor intrusion also exceeded the FDEP's target risk level for residential exposure, but not for the industrial worker. The COC in groundwater responsible for the vapor intrusion risk is trichloroethene. This analyte is also listed as a COC in groundwater.

Ecological Risk Assessment Summary

The ERA evaluated the potential risk to ecological receptors that may be exposed to soil and groundwater. With regard to the ecological receptors, it was determined that the terrestrial exposure pathway is incomplete. This is because the site-related contamination is limited to subsurface soil and groundwater and the urban/industrial nature of the area surrounding PSC 45 does not support utilization of the area by terrestrial receptors. Groundwater from the intermediate layer of the surficial aquifer that is associated with PSC 45 has not reached the St. Johns River; therefore, only the analytical data from groundwater samples collected within the upper surficial groundwater layer were evaluated in the ERA. Site-specific information shows that groundwater, from the upper surficial groundwater layer, seeps into

the stormwater sewers. This groundwater is then conveyed approximately ½ mile to the point of discharge into the St. Johns River. The groundwater quality data, associated with the upper surficial groundwater layer, were compared to marine surface water Ecological Screening Values (ESVs) preferentially obtained from Chapter 62-302.530, Florida Administrative Code (F.A.C.), *Criteria for Surface Water Quality Classifications* (Class III, Predominantly Marine) (FDEP, 2012).

The results of the ERA indicate that one analyte (1,1-dichloroethene) was detected once in an upper surficial groundwater sample at a concentration (750 micrograms per liter [µg/L]) that exceeded the FDEP's surface water ESV of 3.2 µg/L, but not the USEPA Region 4 surface water ESV of 2,240 µg/L. The comparison of the average 1,1-dichloroethene concentration against either surface water EVA is based upon the assumption that groundwater, containing 1,1-dichloroethene, seeps into the storm sewer and the concentration does not change during the ½ mile transport from the point of seepage to the point of discharge. Therefore, it is premature to conclude that 1,1-dichloroethene is presenting a risks to aquatic receptors as there are no data on the range of concentration of 1,1-dichloroethene in the storm sewer and all the groundwater concentrations of 1,1-dichloroethene were less than the USEPA Region 4 ESV.

Operable Unit (OU) 3 is currently undergoing an RI that includes an extensive evaluation of the storm sewer system from impacts from multiple chlorinated solvent groundwater plumes located across OU 3. This evaluation includes direct monitoring data collected from the storm sewers, outfalls, and sediment pore water from the St. Johns River. This evaluation is a more thorough evaluation of potential risks posed by contaminated groundwater intrusion into the storm sewer system. As a result, any risk posed to the storm sewer system from PSC 45 will likely be mitigated by any eventual remedy outcomes related to the storm sewers at OU 3.

Conclusions and Recommendations

The information presented in this RI demonstrates that the nature of the contamination is known, but the extent of contamination in soil and groundwater has not been fully delineated. A review of the Phase II data from the areas to the north and northeast of PSC 45 shows that those results are distinctly different from the chemical profiles of other sampling locations at PSC 45. These results suggest that a secondary source of contamination originating somewhere immediately north of PSC 45 is likely to be responsible for impacts to groundwater in that area. Based on review of this information, the Partnering Team determined that additional investigation into this possible second source area should be conducted as a separate site and that further investigation of the area to the north and northeast of PSC 45 is not warranted as part of the PSC 45 RI.

Based on review of the risks posed by soils, it is recommended that a removal action be considered for soils in the source area. Some limited additional soil sampling should be conducted possibly as part of a remedial design for a potential removal action. This effort should be limited to the measurement of cPAHs in the immediate vicinity of the former wash rack adjacent to the soil samples collected in Phase II of the RI.

For remaining groundwater impacts that can be attributed to PSC 45, the extent of contamination has been adequately delineated. Metal and PAH impacts noted in shallow groundwater may be mitigated by a source zone soil removal action. Remaining groundwater impacts may be attenuated naturally. It should be noted that additional groundwater sampling would be necessary to fully evaluate monitored natural attenuation (MNA), should MNA be proposed as a component of a groundwater remedy. This monitoring effort may be best conducted after any removal action for source zone soils.

Based on the results of the human health screening evaluation summary, it is likely that any future remedy for the site includes site use restrictions to prevent residential development of the PSC 45 area until impacted media are demonstrated to be less than residential risk thresholds. The land use restrictions should also include a prohibition on the use of shallow groundwater until remaining contamination falls below consumptive use thresholds.

In summary, the groundwater concentrations of 1,1-dichloroethene suggest a potential risk to aquatic receptors in the St. Johns River based on the FDEP surface water ESV. Based on the USEPA Region 4 ESV, groundwater concentrations of this compound do not pose risks to aquatic receptors. The NAS Jacksonville Partnering Team determined that an additional downgradient well would be added and another round of groundwater monitoring would be conducted to evaluate if there is potential for impact to the storm sewer. The additional data collected from the newly installed and previously existing wells will be incorporated into the Feasibility Study (FS) for PSC 45. Furthermore the storm sewer, that is receiving groundwater associated with PSC 45, is part of the OU 3 storm sewer system, which is currently being evaluated as part of the OU 3 RI/FS Addendum effort. An evaluation of potential corrective measures related to the storm sewer pathway based on the potential for risks posed to human health and ecological receptors related to the St. Johns River will be addressed under that separate effort.

1.0 INTRODUCTION

Tetra Tech under contract to the United States Navy, Naval Facilities Engineering Command Southeast (NAVFAC SE) conducted a remedial investigation (RI) for Potential Source of Contamination (PSC) 45 at Naval Air Station (NAS) Jacksonville located in Jacksonville, Duval County, Florida. The RI was completed in accordance with Comprehensive Long-term Environmental Action Navy Contract Number N62467-04-D-0055, Contract Task Order (CTO) 0112, as part of the Navy Installation Restoration Program (NIRP). The activities and findings for the RI are presented and discussed in this report.

The Navy implemented the NIRP to investigate and remediate releases of hazardous materials at Navy and Marine Corps installations. The NAS Jacksonville Installation Restoration Partnering Team (Partnering Team), established in 1993, guides the implementation of the NIRP at NAS Jacksonville. The Partnering Team consists of representatives from the United States Environmental Protection Agency (USEPA), the Florida Department of Environmental Protection (FDEP), NAVFAC SE and its consultants, the United States Geological Survey (USGS), and the NAS Jacksonville Public Works Department.

1.1 RI APPROACH AND OBJECTIVES

The Building 200 Wash Rack Disposal Pit was identified as PSC 45 by NAS Jacksonville personnel in 1991. Building 200 is a ground support equipment facility and is located on the northern industrialized portion of NAS Jacksonville near the flight line. A covered wash rack with a floor drain leading to an oil/water separator (located beneath wash rack) was located on the northwestern corner of Building 200. An overflow pipe from the oil/water separator was connected to a cylindrical concrete disposal pit located approximately 2 feet east of the covered wash rack area. The pit was a French drain design that leached directly into the subsurface soil. The pit was gravel filled with an earthen bottom and a concrete lid approximately 4 feet in diameter. A small grassy area surrounded the former disposal pit, and a paved parking lot is located north of this grassy area. A series of investigations, in which data were collected, indicated impacts to both soils and groundwater beneath PSC 45. Detail regarding the site history is provided in Section 2.0.

A scoping meeting was conducted by the Partnering Team to plan the RI field activities. The Partnering Team used the findings of the site investigation (SI) to focus RI activities on determining the extent of contamination in soil and groundwater. A Uniform Federal Policy Sampling and Analysis Plan (SAP) was developed and used to guide the RI field activities.

The SI confirmed the presence of VOC constituents in groundwater; however, it did not determine if semivolatile organic compounds (SVOCs), including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), or metals detected in source area soils also impacted groundwater. It was presumed that due to the lower mobility of some of these constituents, any impacts to groundwater may be restricted in both concentration and extent. As a result, a two-phase evaluation was performed. Phase I was initiated in the beginning of April 2011, and Phase II was initiated at the end of June 2011. Groundwater wells were installed and sampled at the beginning of May 2011 (Phase I) for a broad range of target analytes. After reviewing the results of the May 2011 sampling effort, the Partnering Team decided in Phase II to analyze the soil samples for the same set of target analytes evaluated in Phase I. The groundwater samples associated with the Phase II were analyzed for a more focused list of target analytes.

The objectives of the RI were to develop data that enables the Partnering Team to (a) determine the nature and extent of contamination at PSC 45, (b) evaluate human health risks through a Human Health Risk Assessment (HHRA), (c) evaluate risk to ecological receptors through an Ecological Risk Assessment (ERA), and (d) determine the follow-up activities that may be required in subsequent remedial activities.

1.2 REPORT SCOPE AND ORGANIZATION

This report documents the results from the current field RI program, includes analytical results from previous investigations, and summarizes the findings and conclusions of these previous investigations. Furthermore, these reports are included by reference so as to provide a comprehensive record of the investigative activities at PSC 45.

This report contains the following sections:

1.0 Introduction, overview of the RI approach and objectives, and the scope and organization of the report
2.0 Site background, location, descriptions, history of PSC 45, and physical characteristics of the region and PSC 45 including climate, soil, geology, and hydrogeology
3.0 Previous site investigations
4.0 Field program summary of the activities conducted for this RI
5.0 Nature and extent of all contamination within each environmental medium
6.0 Chemical fate and transport analysis
7.0 HHRA
8.0 ERA
9.0 Summary and Conclusions
References

2.0 SITE BACKGROUND

2.1 SITE CHARACTERIZATION

The following sections provide a historical overview of the NAS Jacksonville facility and a site-specific background for PSC 45. Background information on the geography and demographics, physiography and topography, climate, soil, regional geology, and regional hydrogeology are summarized.

2.1.1 Location and Description

NAS Jacksonville occupies approximately 3,896 acres in southeastern Duval County, Florida and is located approximately 9 miles south of downtown Jacksonville. The facility is located on the St. Johns River approximately 24 miles upstream from its confluence with the Atlantic Ocean. The main portion of NAS Jacksonville is bordered to the north by the Timaquana Country Club, to the east and northeast by the St. Johns River, to the south by a residential area, and to the west by Highway 17 (Roosevelt Boulevard) with Westside Regional Park, commercial developments, and other NAS Jacksonville operations beyond. The location of NAS Jacksonville is presented on Figure 2-1. The location of PSC 45 on NAS Jacksonville is presented on Figure 2-2.

NAS Jacksonville is a multi-mission base hosting more than 100 tenant commands and employing more than 26,000 active duty and civilian personnel. The installation is home to the P-3C Orion long-range maritime surveillance aircraft, the SH-60F Seahawk helicopter, and the S-3B Viking jet aircraft. The Naval Aviation Depot located at NAS Jacksonville is the largest industrial employer in northeastern Florida and performs maintenance, repair, and overhaul of Navy aircraft.

In addition to the many operational squadrons flying P-3, C-12, and C-9 aircraft and SH-60F helicopters, NAS Jacksonville is home to Patrol Squadron Thirty, the Navy's largest aviation squadron and the only "Orion" Fleet Replacement Squadron that prepares and trains United States and foreign pilots, air crew, and maintenance personnel for further operational assignments.

Support facilities include an airfield for pilot training, a maintenance depot employing more than 150 different trade skills capable of performing maintenance as basic as changing a tire to intricate micro-electronics or total engine disassembly, a Naval Hospital, a Fleet Industrial Supply Center, a Navy Family Service Center, and recreational facilities.

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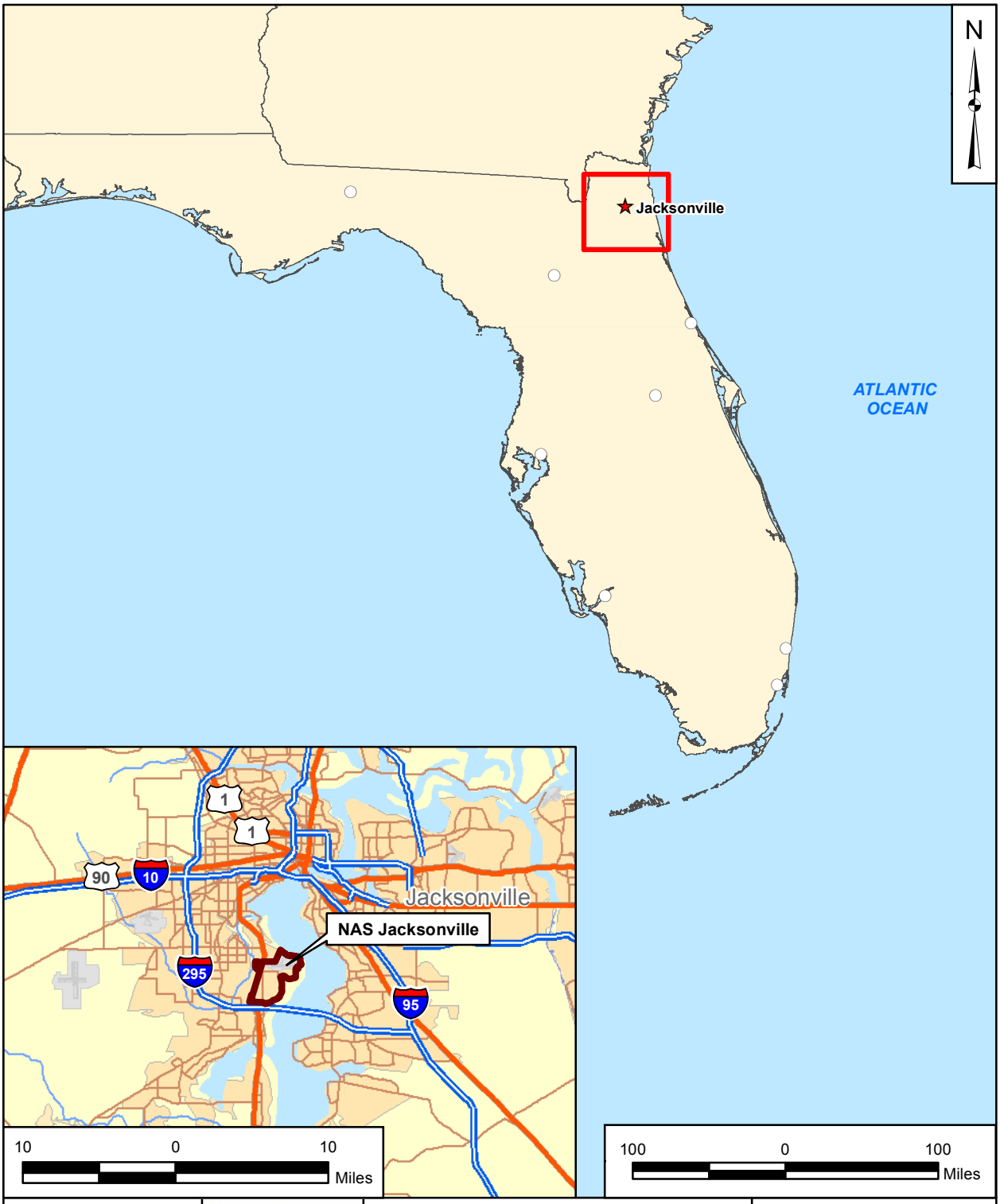

DRAWN BY T. WHEATON	DATE 07/23/10	FACILITY LOCATION MAP NAS JACKSONVILLE JACKSONVILLE, FLORIDA	CONTRACT NUMBER CTO 112
CHECKED BY B. PEEBLES	DATE 01/27/12		OWNER NUMBER —
REVISED BY C. TULLEY	DATE 12/27/11		APPROVED BY B. PEEBLES / DATE 01/27/12
SCALE AS NOTED			FIGURE NO. FIGURE 2-1 / REV 0

PG H P:\GIS\JACKSONVILLE_NAS\MXD\PSC_ALL_SITE_MAP_REV_122711.MXD 01/13/12 CJT

DRAWN BY C. TULLEY	DATE 12/27/11	PSC 45 SITE LOCATION MAP	CONTRACT NUMBER CTO 112
CHECKED BY B. PEEBLES	DATE 12/10/10	FACILITY-WIDE VIEW	APPROVED BY — DATE —
REVISED BY S. STROZ	DATE 12/21/10	NAS JACKSONVILLE	APPROVED BY — DATE —
SCALE AS NOTED	NAVFAC	JACKSONVILLE, FLORIDA	FIGURE NO. Figure 2-2 / REV 0

2.1.2 NAS Jacksonville History

NAS Jacksonville was commissioned on October 15, 1940, to provide facilities for pilot training and a Navy Aviation Trade (NAT) School for ground crewmen. With the advent of World War II, the physical size of the NAS Jacksonville more than doubled, and military functions supported the war effort. During 1942, the Navy phased out pilot training, and the Station became the headquarters for the Chief of Naval Operational Training, the final training phase before fleet assignment. The NAT School became the Naval Air Technical Training Center under the Chief of Naval Air Technical Training, NAS Memphis. The operational areas of the Station still maintained coastal protection with seaplanes. The facility reached a peak of 42,000 Naval personnel and 11,000 civilians by 1946.

At the conclusion of World War II, NAS Jacksonville was devoted entirely to aviation training. In 1945, Chief of Naval Operational Training was redesignated Chief Naval Air Advanced Training. In July 1946, the Seventh Naval District was transferred from Miami, Florida to the NAS Jacksonville facility, as joint command with Chief Naval Air Advanced Training. On April 5, 1948, the Navy transferred the Chief Naval Air Training and all training facilities to NAS Corpus Christi, Texas.

By January 1949, NAS Jacksonville's mission was to support the operational carrier squadrons with fleet squadrons assigned to Commander, Naval Air Bases, Sixth District, and patrol squadrons assigned to Combat Patrol Wing Eleven. On January 1, 1951, the Navy reactivated the Naval Air Technical Training Center and Marine Air Division activities in support of the Korean build-up of facilities. This joint operational and training status continues to this time.

2.1.3 PSC 45 Location and Description

PSC 45, the former Building 200 Wash Rack Disposal Pit, is located on the NAS Jacksonville facility (see Figure 2-2). Building 200 is a ground support equipment facility and is located on the northern industrialized portion of NAS Jacksonville near the flight line. A covered wash rack with a floor drain leading to an oil/water separator (located beneath wash rack) was located in a small room (the Wash Rack Room) attached to the northwestern corner of the Building 200 (see Figure 2-3). An overflow pipe from the oil/water separator was connected to a cylindrical concrete disposal pit located approximately 20 feet east of the Wash Rack Room. The pit was a French drain design that leached directly into the subsurface soil. The pit was gravel filled with an earthen bottom and a concrete lid approximately 4 feet in diameter. A small grassy area surrounded the former disposal pit, and a paved parking lot is located north of this grassy area. The Building 200 Wash Rack Disposal Pit was identified as PSC 45 by NAS Jacksonville personnel in 1991.

PGH P:\GIS\JACKSONVILLE_NAS\MXD\PSC45_SITEMAP_AERIAL.MXD 12/14/12 SP

DRAWN BY: S. PAXTON	DATE: 10/06/08	PSC 45 SITE LOCATION MAP SITE-SPECIFIC VIEW NAS JACKSONVILLE JACKSONVILLE, FLORIDA	CONTRACT NUMBER: 2686 / CTO NUMBER: JM19
CHECKED BY: M. TRAXLER	DATE: 12/14/12		APPROVED BY: ___ / DATE: ___
REVISED BY: S. PAXTON	DATE: 12/14/12		APPROVED BY: ___ / DATE: ___
SCALE: AS NOTED			FIGURE NO.: FIGURE 2 - 3 / REV: 0

2.1.4 PSC 45 History

In the past, ground support equipment was cleaned in the wash rack. While in the wash rack, solvents were used to strip paint off the equipment. For an unknown period of time (up to 1991), the disposal pit received overflow from an oil/water separator located beneath the wash rack. According to a Hazardous Waste Manager for Building 200, no maintenance was ever done on the oil/water separator (Tetra Tech, 2004). In 1991 during plumbing repair work at Building 200, a connection from the wash rack to the disposal pit was discovered. After the connection was discovered, the connection from the oil/water separator to the pit was plugged, and waste from the pit was removed and disposed of as hazardous waste.

A new oil/water separator was installed within the pit excavation area. The old oil/water separator is still operational in the Wash Rack Room; however, to further safeguard against the accidental release of oil and solvents, effluent from the old separator is directed through plumbing to the new separator before going directly to the sanitary sewer.

The following is a list of chronological events for activities performed at PSC 45:

- The disposal pit and connection were discovered in 1991 during plumbing repair work at Building 200, and a liquid sample was collected from the disposal pit. The gross components of the sample were reported to be water, paint chips, paint stripper, and oil.
- In 1994, a sludge sample was collected from the disposal pit and analyzed for oil and grease only; the result was 7.8 milligrams per liter (mg/L).
- In 1998, the Wash Rack Disposal Pit, the liquid and solids within the pit, and the soil surrounding and underlying the pit were removed.

A SI was conducted at PSC 45 in 2009, as documented in the SI Report for PSC 45 (Tetra Tech, 2011b). Analytes were detected in soil and groundwater at concentrations in excess of the SI-specific Project Action Limits (PALs).

2.2 ENVIRONMENTAL SETTING

Data obtained during this RI and from previous investigations at nearby Operable Unit (OU) 3 were used to develop the information presented in this section.

2.2.1 Geography, Demographics, and Land Use

PSC 45 is connected through underground structures (i.e., piping and an oil/water separator) to the Wash Rack Room, which is on the northwestern side of Building 200. This building is a ground support equipment facility and is located on the northern industrialized part of NAS Jacksonville near the flight line.

2.2.2 Physiography and Topography

NAS Jacksonville is located in the Coastal Plain physiographic province. The Coastal Plain is composed of marine and fluvial sediments in the vicinity of the facility. The sediments were deposited in terraces related to prehistoric fluctuations in sea level. The terrace deposits are in the form of ridges that tend to parallel the current coastline. The topography of the terrace deposits is characterized by very low relief with gentle slopes to the east-southeast. Seven terraces are present in northeastern Florida with NAS Jacksonville located within the Pamlico terrace (10 to 25 feet above mean sea level [msl]).

The overall topography at PSC 45 and Building 200 is generally flat with a gentle slope to the southeast according to the USGS topographic map for Orange Park (USGS, 1993). A topographical map is presented as Figure 2-4.

2.2.3 Climate

The climate in northeastern Florida approaches semitropical as it lies near the northern limit of the trade winds (the prevailing easterly winds that moderate summer and winter temperatures). The annual mean temperature is 68 to 70 degrees Fahrenheit (°F) with an average temperature in the summer of 82 to 83 °F and a winter average of 56 to 57 °F. Summer highs reach the middle to upper 90 °F, sometimes exceeding 100 °F. The winter lows can reach the upper teens, although temperatures seldom drop below freezing.

The region experiences an average of 54 inches of rainfall per year, most of which accumulates during frequent summer thunderstorms. Extended dry periods may occur throughout the year; however, they are most common in spring and fall. The relative humidity averages 87 percent and the average annual sunshine is 62 percent of the maximum.

Wind speed in northeastern Florida averages 8 miles per hour with winds predominantly from the northeast in the winter and from the southwest in the summer. Winds of hurricane force can be expected once in 5 years with significant deviations from the average. Tropical storm activity mostly occurs from August through October, although the 6-month period from June 1 through November 30 is officially considered the Atlantic hurricane season.

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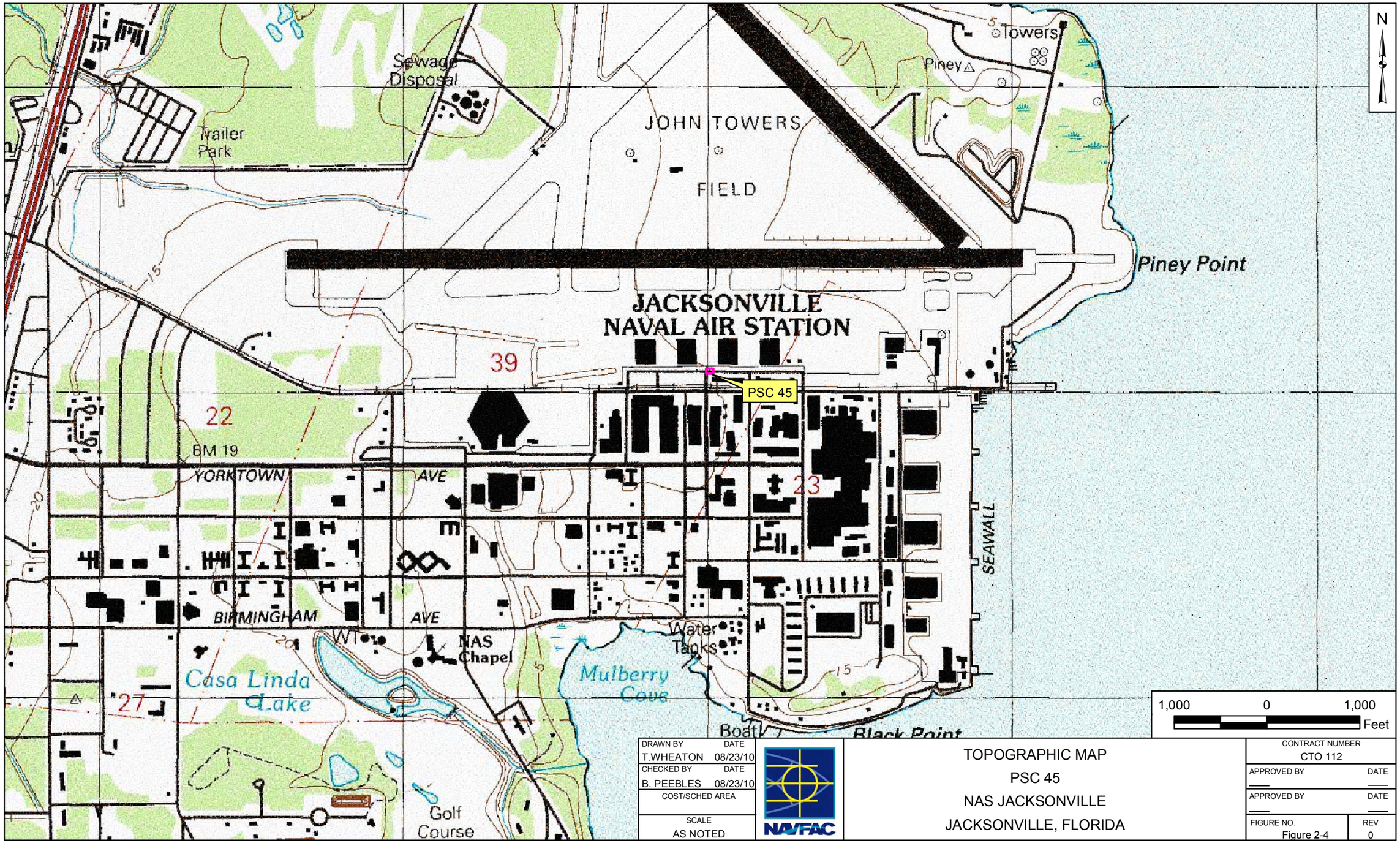

DRAWN BY T.WHEATON	DATE 08/23/10	TOPOGRAPHIC MAP PSC 45 NAS JACKSONVILLE JACKSONVILLE, FLORIDA	CONTRACT NUMBER CTO 112
CHECKED BY B. PEEBLES	DATE 08/23/10		APPROVED BY / DATE
COST/SCHED AREA			APPROVED BY / DATE
SCALE AS NOTED			FIGURE NO. Figure 2-4 / REV 0

2.2.4 Soil

Soils at NAS Jacksonville developed in marine terrace sediment deposits and are regionally classified by the United States Department of Agriculture (USDA) Soil Conservation Service as the Pelham-Mascotte-Sapelo soil series association. Soils in this association are characterized as nearly level, poorly drained sands to a depth of 20 inches below ground surface (bgs), which are underlain by loamy sands ([USDA, 1978).

2.2.5 Regional Geology

The geologic profile at NAS Jacksonville is comprised of unconsolidated surficial deposits of predominantly fine to very fine clastic sediments that range from clean fine to medium-grained sands, to silty sands, to sandy and silty clay (Fairchild, 1972) overlying thick deposits of phosphatic sands and clays of the Hawthorn Group (Scott, 1988) and limestones and dolomites of the Floridan aquifer system (Leve, 1966).

The Hawthorn Group is significant at NAS Jacksonville because it contains as much as 200 feet of low permeability, silty, sand-clay layers (Scott, 1988). This low permeability deposit acts as an aquiclude for the underlying Floridan aquifer system. The Floridan aquifer system is the major source of potable water in the Jacksonville area and throughout much of northeastern and central Florida.

2.2.6 Regional Hydrology

Three aquifer systems have been identified in the Jacksonville area including the surficial aquifer, the intermediate aquifer, and the Floridan aquifer system.

The surficial deposits consist of sediments of Late Miocene to Recent age. The sediments are highly variable and include sands, shelly sands, coquina, silts, clay, and shell beds. While the surficial aquifer may be considered a single unit on a regional or base-wide scale, localized clay layers or discontinuous lenses may divide the aquifer into distinct permeable units (ABB-ES, 1995). The contact between the surficial aquifer deposits and the underlying Hawthorn Group is an unconformity generally identified by a coarse phosphatic sand and gravel bed (Leve, 1966). Average well yields in Jacksonville for the shallow groundwater aquifer were estimated by the City of Jacksonville Planning Department to be between 200 and 500 gallons per day (Toth, 1990). This groundwater is primarily used for lawn irrigations, domestic purposes, and the heat exchange unit in air conditioning and heating units.

The top of the Hawthorn Group ranges from approximately 35 to 100 feet bgs at NAS Jacksonville and is about 60 feet bgs at Hangar 1000 (USGS, 1998), which is approximately 2,000 feet west of PSC 45, and Figure 6 in USGS, 1998 indicates that the top of the Hawthorn Group is approximately 75 feet bgs at

PSC 45. The Hawthorn Group is approximately 300 feet thick and consists mainly of dark-gray and olive-green sandy to silty clay, clayey sand, clay, and sandy limestone. Black phosphatic sand, granules, and pebbles are common throughout the Hawthorn Group (Fairchild, 1972). The combination of numerous thick clay layers within the Hawthorn Group serves as confining layers that separate the surficial aquifer from the underlying Floridan aquifer system. The most common carbonate components of the Hawthorn Group are dolomite and dolosilt. Clay minerals associated with the Hawthorn Group sediments are smectite, illite, palygorskite, and kaolinite.

The intermediate aquifer has been identified at NAS Jacksonville as permeable sediments in the upper part of the Hawthorn formation.

A marine carbonate sequence makes up the Floridan aquifer system beneath NAS Jacksonville. The formation groups of the Floridan aquifer are Eocene in age and consist of, in descending order, the Ocala Group, Avon Park Limestone, Lake City Limestone, and Oldsmar Limestone. The Floridan aquifer system is the principal source of fresh water in northeast Florida. The water bearing zones consist of soft, porous limestone and porous dolomite beds. The top of the Floridan aquifer in the vicinity of NAS Jacksonville occurs at a depth of about 400 feet bgs. Published transmissivities of the Floridan aquifer in eastern Duval County range from approximately 85,000 to 160,000 gallons per day per foot (Leve, 1966). Groundwater in the Floridan aquifer in the vicinity of NAS Jacksonville moves eastward toward areas of heavy pumping (Fairchild, 1972). Floridan aquifer wells in the vicinity of NAS Jacksonville are under sufficient artesian pressure to flow at the surface.

Hydrogeologic information for water supply wells (see Figure 2-5) located within 1 mile south of the site can be found in the *Navy Installation Restoration Program Plan* (Geraghty and Miller, Inc., 1991). This Plan contains information related to seasonal variation of surface water and groundwater flow, geological cross sections, and regional surveys.

2.2.7 Regional Surface Water

Two principal waterways, the St. Johns River and Ortega River, are located near NAS Jacksonville. The St. Johns River forms the eastern boundary of NAS Jacksonville. The St. Johns River is rated by the FDEP as a Class III water body, which is designated for fish and wildlife propagation and body contact recreational use. The river at this point is influenced by tidal action and can be considered part of the St. Johns River estuary (NAS Jacksonville, 1990). PSC 45 is within the St. Johns River drainage basin. Based on salinity measurements taken during the Scoping Study Field Program, which ranged from 7.0 to 8.8 parts per thousand (ppt) as reported in the OU 3 RI/Feasibility Study (FS), the water would be classified as marine. Salinity values greater than 2 ppt would support marine vegetation and aquatic life.

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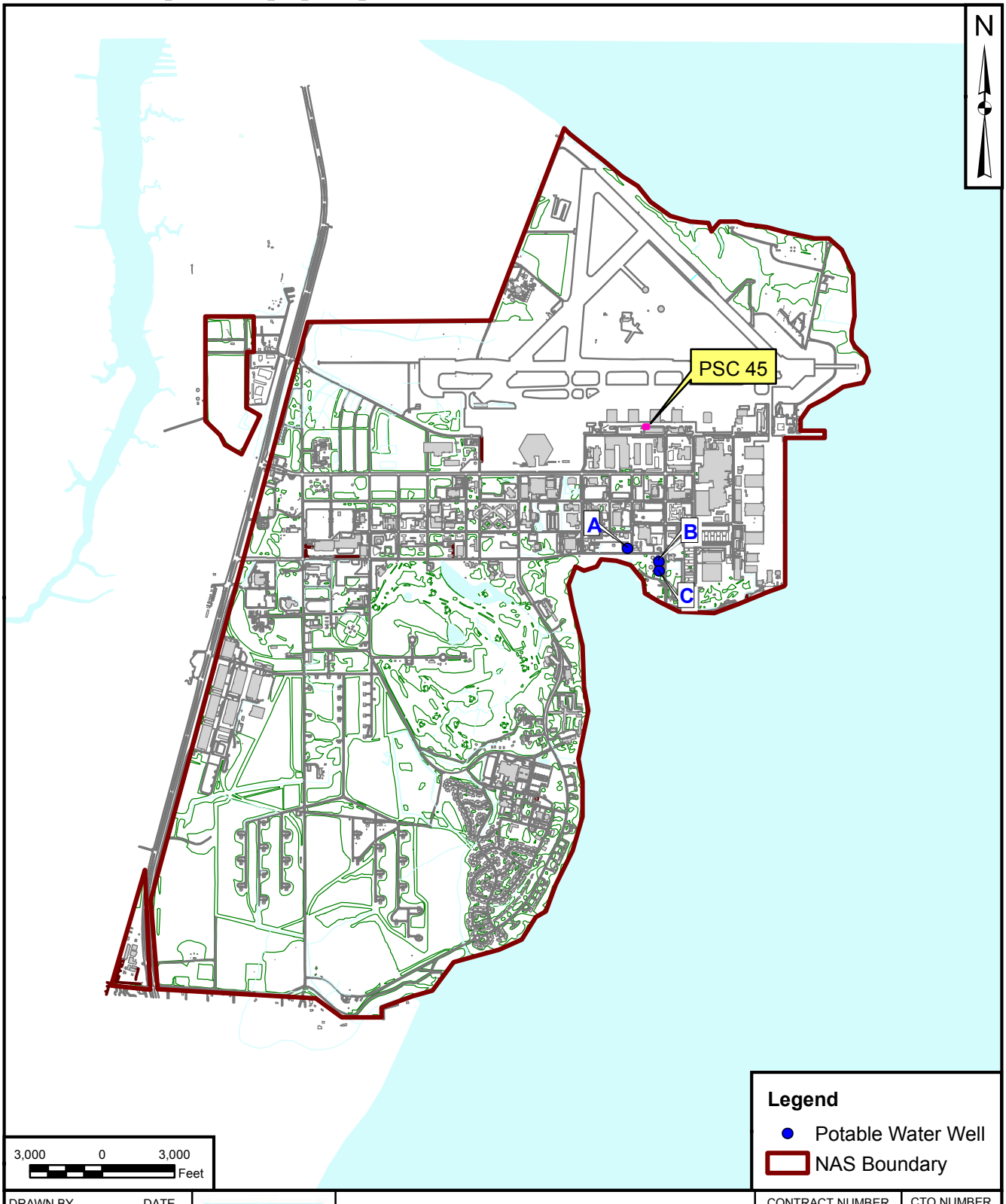


DRAWN BY / DATE	C. SPEHAR 3/13/06
CHECKED BY / DATE	B. PEEBLES 6/26/12
REVISED BY / DATE	K. MOORE 6/29/12
SCALE	AS NOTED

NAVFAC

LOCATION OF POTABLE WELLS
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER CTO 112
APPROVED BY / DATE	
APPROVED BY / DATE	
FIGURE NO. FIGURE 2-5	REV 0

2.2.8 Site-Specific Geology

Site-specific geological information was obtained from the installation of four soil borings (SLB-01, SLB-02, SLB-03, and SLB-04) at PSC 45 (see Figure 2-6 for location of the borings; see Appendix A for the soil boring logs). The site geology is generally characterized by a fine grained unconsolidated sand near the ground surface, which grades vertically into a clay fine sand interval at approximately 12 to 15 feet bgs followed by a fine sandy clay interval beginning at approximately 23 to 25 feet bgs. The shallow fine sand interval is fairly homogeneous in nature. The clay fine sand interval is mainly clay. In the area of SLB-01 and SLB-02, the fine sandy clay interval transistions into find sand at approximately 45 feet bgs, which continues until the borings terminated at 70 feet bgs. In the area of SLB-03 and SLB-04, the find sand is first encountered at 30 feet bgs and continues until the boring terminated at 70 feet bgs.

The shallow unit (layer 1) includes the surficial sands, silty sands, and sandy clay. The clay unit (layer 2) extends to between 30 to 40 feet bgs where a second sand unit (layer 3) is encountered. The second sand unit has been referred to as the intermediate aquifer at NAS Jacksonville. Below the intermediate aquifer are sediments of the Hawthorn Group (USGS, 2002). The Hawthorn Formation was not encountered by soil borings at PSC 45, which were concluded at 70 feet bgs.

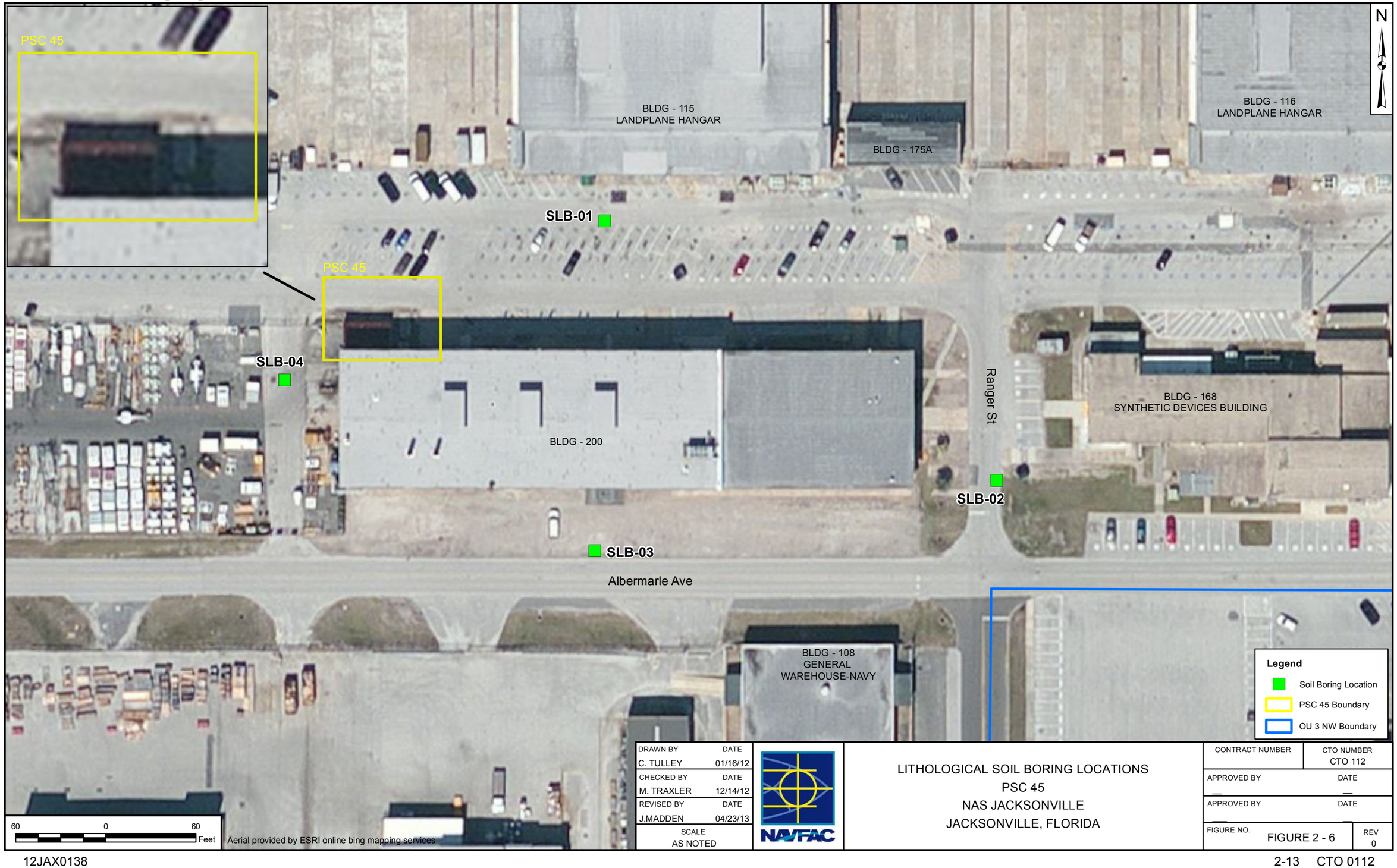
2.2.9 Site-Specific Surface Water

Surface water runoff is directed toward an extensive stormwater drainage system present at NAS Jacksonville. Stormwater runoff from PSC 45 empties into storm sewers, which, in turn, empty into a drainage ditch located southeast of PSC 45. Runoff from the stormwater ditch flows to the south toward the St. Johns River, which is located approximately 2,800 feet east of PSC 45.

2.2.10 Site-Specific Hydrogeology

The depth to groundwater at PSC 45 was approximately 4.5 feet bgs at each permanent monitoring well and at each direct push technology (DPT) soil boring. According to a study by the USGS (1998), groundwater flow direction in the upper layer of the surficial aquifer appears to be influenced by nearby stormwater drains (see Figure 2-7 modified from USGS, 1998; see Figure 12 in Appendix B). This upper layer of the surficial aquifer and extends from land surface down to 15 feet below msl (see Figure 20 in Appendix B).

Rev. 1
MAY 2013



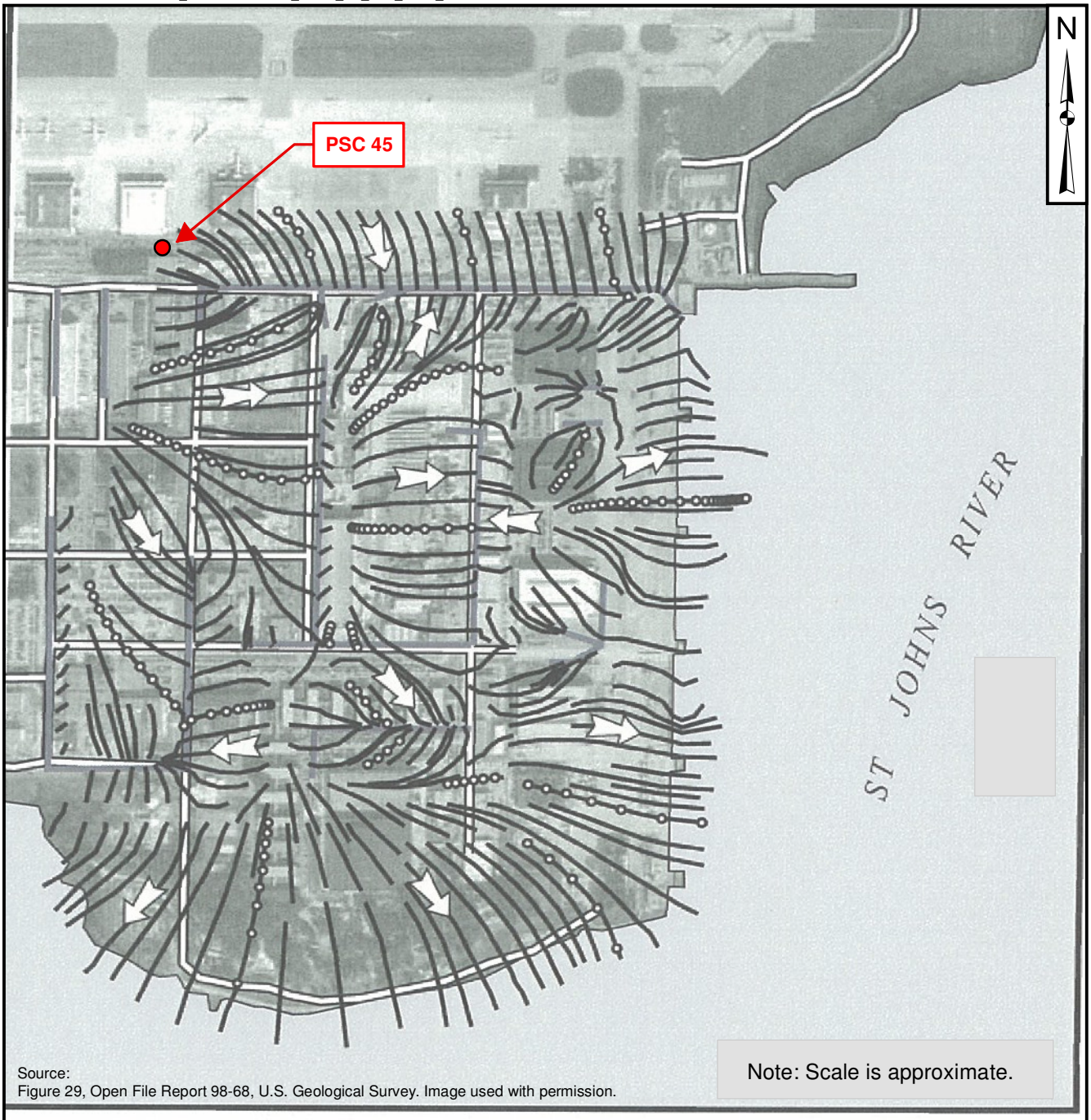
DRAWN BY	DATE
C. TULLEY	01/16/12
CHECKED BY	DATE
M. TRAXLER	12/14/12
REVISED BY	DATE
J.MADDEN	04/23/13
SCALE	
AS NOTED	

NAVFAC

LITHOLOGICAL SOIL BORING LOCATIONS
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER CTO 112
APPROVED BY —	DATE —
APPROVED BY —	DATE —
FIGURE NO. FIGURE 2 - 6	REV 0

PGH P:\GIS\JACKSONVILLE_NAS\MXD\PSC45_USGS_OF_RPT_98-68_FIG29.MXD 12/14/12 SP



Source:
Figure 29, Open File Report 98-68, U.S. Geological Survey. Image used with permission.

Note: Scale is approximate.

PARTICLE PATHLINE - Shows simulated ground-water flow path in the upper layer. Distance between dots represents a travel time of 40 years.

STORMWATER DRAIN ASSUMED TO BE LEAKING

WHITE GROUND-WATER FLOW ARROW - Shows direction of ground-water flow along pathlines.

800 0 800 Feet

DRAWN BY	DATE
C. TULLEY	01/24/12
CHECKED BY	DATE
M. TRAXLER	12/14/12
REVISED BY	DATE
S. PAXTON	12/14/12
SCALE	
AS NOTED	

NAVFAC

PARTICLE PATHLINES REPRESENTING GROUNDWATER FLOW DIRECTIONS IN THE UPPER LAYER OF THE SURFICIAL AQUIFER AT OPERABLE UNIT 3
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
112G01511	0112
APPROVED BY	DATE
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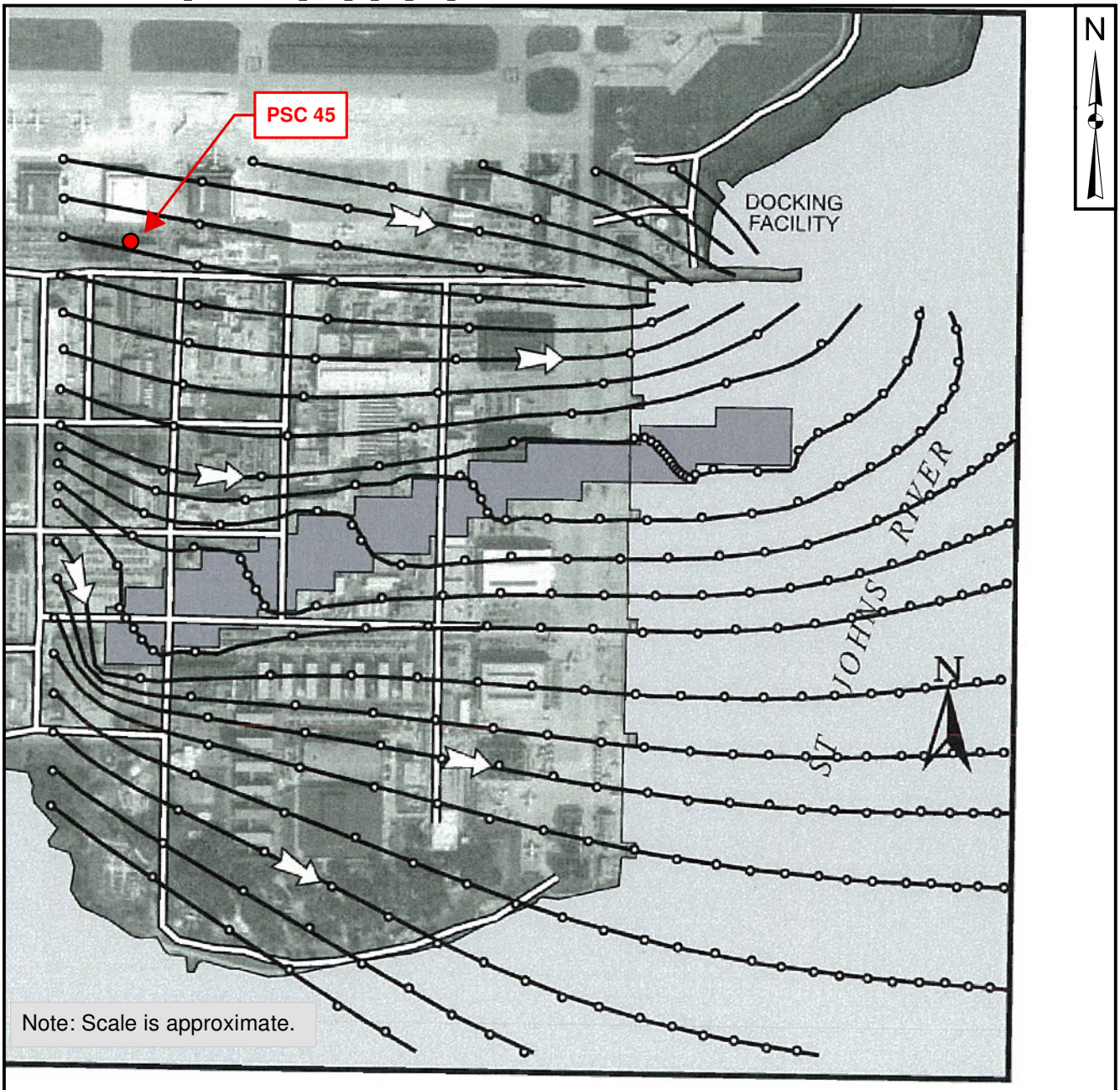
___	___
FIGURE NO.	REV
FIGURE 2 - 7	0

It was documented by camera surveys in selected drains that groundwater seeps into the stormwater drains through joints and cracks. The depths to the bottom of the drains vary and generally range from 5 to 10 feet bgs. The bottoms in the stormwater drains are below the top of the water table; therefore, the drains can remove groundwater from the upper layer of the aquifer, but cannot act as a source of water to the aquifer (USGS, 1998). The groundwater flow in the intermediate layer is generally eastward toward the St. Johns River (see Figure 2-8, modified from USGS, 1998; see Figure 14 in Appendix B). The intermediate layer extends from the bottom of the upper layer down to the top of the Hawthorn Group (see Figure 20 in Appendix B).

Hydraulic properties for the surficial aquifer were determined by the USGS via multiple-well aquifer tests that were conducted on select monitoring wells associated with OU 3. A horizontal hydraulic conductivity of 0.6 foot per day was determined for the upper layer, and the horizontal hydraulic conductivity in the intermediate layer was determined to be 20 feet per day (USGS, 1998).

The groundwater movement at PSC 45 and OU 3 was computed by the USGS using the program MODPATH (USGS, 1998; Appendix B). Particle-tracking techniques in combination with the MODFLOW computed flow rates between model cells were used. A porosity of 25 percent was assumed for both the upper and intermediate layers of the surficial aquifer. Simulated groundwater flow pathlines for the upper layer are shown on Figure 2-7. At PSC 45, the leaking stormwater drains strongly influence the direction of groundwater flow. The groundwater velocity in the upper layer of the surficial aquifer averaged about 2 feet per year. (Note: the distance between dots along selected pathlines on Figure 2-7 indicates 40 years of travel time.) According to Hal Davis (USGS, 1998), these slow velocities are primarily the result of the low horizontal hydraulic conductivity and, secondarily, the result of low hydraulic gradients due to the low recharge rate in the extensively paved areas. Simulated groundwater flow in the intermediate layer beneath PSC 45 and OU 3 is generally eastward toward and discharges into the St. Johns River (Figure 2-8, modified from USGS, 1998). Groundwater flow velocity in the intermediate layer associated with PSC 45 is about 35 feet per year. The groundwater flow velocity in the intermediate layer is higher than in the upper layer because the horizontal hydraulic gradients are higher in the intermediate layer than they are in the upper layer (USGS, 1998).

PGH P:\GIS\JACKSONVILLE_NAS\MXD\PSC45_USGS_OF_RPT_98-68_FIG30.MXD 12/14/12 SP



Source:
Figure 30, Open File Report 98-68, U.S. Geological Survey. Image used with permission.

PARTICLE PATHLINE - Shows simulated ground-water flow path in the intermediate layer. Distance between dots represents a travel time of 20 years.

LOW-PERMEABILITY CHANNEL-FILL DEPOSITS

WHITE GROUND-WATER FLOW ARROW - Shows direction of ground-water flow along pathlines.

850 0 850 Feet

DRAWN BY C. TULLEY	DATE 01/24/12	PARTICLE PATHLINES REPRESENTING GROUNDWATER FLOW DIRECTIONS IN THE INTERMEDIATE LAYER OF THE SURFICIAL AQUIFER AT OPERABLE UNIT 3 NAS JACKSONVILLE JACKSONVILLE, FLORIDA	CONTRACT NUMBER 112G01511 / CTO NUMBER 0112
CHECKED BY M. TRAXLER	DATE 12/14/12		APPROVED BY ___ / DATE ___
REVISED BY S. PAXTON	DATE 12/14/12		APPROVED BY ___ / DATE ___
SCALE AS NOTED			FIGURE NO. FIGURE 2 - 8 / REV 0

3.0 PREVIOUS SITE INVESTIGATIONS

The following is a summary of previous investigations conducted at PSC 45.

3.1 INITIAL WASTE CHARACTERIZATION

A liquid sample was collected from the disposal pit in July 1991, probably before waste was removed from the pit. The gross components of the sample were identified as water, paint chips, paint stripper, and oil. A methylene chloride concentration of 1,800 mg/L and a phenol concentration of 285 mg/L were measured in the sample. In 1994, a sludge sample was collected from the disposal pit and analyzed for oil and grease only; the result was 7.8 mg/L.

In 1998, the Wash Rack Disposal Pit, the liquid and solids within the pit, and the soil surrounding and underlying the pit were removed. Pre-disposal samples collected from the soil, liquid, and solids were analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) for waste characterization, and analyte concentrations were less than the applicable TCLP regulatory limits. No documentation of post-`excavation sampling around the former pit has been found (Tetra Tech, 2004).

3.2 INITIAL SITE INVESTIGATION

In August 2009, as part of the SI for PSC 45, Tetra Tech collected eight soil samples from four soil borings in the area of the former disposal pit (Tetra Tech, 2011b). Four groundwater samples were collected from one of the borings associated with the soil samples. Forty-four additional groundwater samples were collected from 11 borings advanced using DPT along the eastern, northern, and western sides of Building 200. Groundwater samples from a total of 11 locations were collected from the following four depth intervals: 12 to 16, 20 to 24, 40 to 44, and 60 to 64 feet bgs. The soil samples were analyzed for VOCs, SVOCs (including low level PAHs), PCBs, total recoverable petroleum hydrocarbons, and metals. Groundwater samples were analyzed for VOCs using a mobile laboratory.

The results of the SI confirmed that analyte concentrations in excess of the SI-specific PALs were present in soil and groundwater. During the review of the SI data, the Partnering Team agreed the SI-specific PALs would be the RI-specific project screening levels (PSLs). A few VOCs were present in soil at concentrations greater than the SI PALs; however, PAHs appeared to be the primary human health risk driver in soil as a number of these compounds were detected at concentrations greater than the FDEP Soil Cleanup Target Levels (SCTLs) associated with direct exposure by commercial/industrial land use.

During the SI, groundwater was analyzed using a mobile laboratory for a reduced set of target analytes. Fewer analytes were detected in groundwater in the vicinity of the former Wash Rack Disposal Pit than

downgradient of the Wash Rack Disposal Pit. The concentrations of these analytes associated with the Wash Rack Disposal Pit were generally less than concentrations in groundwater from 300 to 500 feet downgradient of the former Wash Rack Disposal Pit. No analytes were detected above the SI-specific PALs in the 60 to 64 feet bgs depth interval from the wells installed adjacent the former Wash Rack Disposal Pit. The majority of analytes detected in groundwater were VOCs that are not usually associated with oil or petroleum hydrocarbons. Most of the analytes were detected in groundwater collected downgradient of the former Wash Rack Disposal Pit. The greatest frequencies of detection were in the 20 to 24 and the 40 to 44 feet bgs depth intervals. No analytes were detected in excess of the SI-specific PALs in the 60 to 64 feet bgs depth interval from the wells installed downgradient of the former Wash Rack Disposal Pit (Tetra Tech, 2011b).

4.0 REMEDIAL INVESTIGATION FIELD PROGRAM

This section documents field work performed in April, May, and June 2011 for the PSC 45 RI. The regional and site-specific geology and hydrogeology presented in Section 2.0 was developed through evaluation of data collected from the PSC 45 RI activities. The work was conducted in accordance with the SAP prepared for this investigation (Tetra Tech, 2011a), with the exception of a few minor deviations as discussed in Section 4.2. Field documentation is included in Appendix A.

4.1 OBJECTIVE AND APPROACH

Review of the existing data available for PSC 45 revealed that the nature and extent of contamination in soil and groundwater at PSC 45 was not determined during the SI. Therefore, the objectives of the RI as defined in the SAP are to develop data that enables the Partnering Team to (a) determine the nature and extent of contamination in soil and groundwater at PSC 45, (b) evaluate human health risks through an HHRA, (c) evaluate risk to ecological receptors through an ERA, and (d) determine the follow-up activities that may be required in subsequent remedial activities.

To meet the objectives of the RI, the members of the Partnering Team created a flexible scope of work that was implemented by Tetra Tech. The work was conducted in two phases. Phase I was initiated in April 2011, and Phase II was initiated in June 2011. Permanent groundwater wells were installed in April 2011 and sampled in May 2011 (Phase I) for a broad range of target analytes (see Table 4-1). After reviewing the results of the May 2011 sampling effort, the Partnering Team decided in Phase II to analyze the soil samples for the same set of target analytes shown in Table 4-1. The temporary groundwater well samples associated with the Phase II DPT borings were analyzed for a more focused list of target analytes (see Table 4-2). The soil and the DPT groundwater-based sampling were conducted in June 2011 (Phase II).

4.2 DEVIATIONS FROM THE WORK PLAN

Minor deviations from the PSC 45 SAP (Tetra Tech, 2011a) occurred due to site-specific conditions. Deviations were generally minor. The deviations were determined to have no impact on project objectives, or data quality and usability.

TABLE 4-1

TARGET ANALYTES ASSOCIATED WITH PHASE I GROUNDWATER SAMPLES AND PHASE II SOIL SAMPLES
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

METALS	PCBs	SVOCs		VOCs	
ALUMINUM	AROCLOR-1016	1,1-BIPHENYL	BIS(2-CHLOROETHYL)ETHER	1,1,1-TRICHLOROETHANE	CHLOROMETHANE
ANTIMONY	AROCLOR-1221	2,2'-OXYBIS(1-CHLOROPROPANE)	BIS(2-ETHYLHEXYL)PHTHALATE	1,1,2,2-TETRACHLOROETHANE	CIS-1,2-DICHLOROETHENE
ARSENIC	AROCLOR-1232	2,4,5-TRICHLOROPHENOL	BUTYL BENZYL PHTHALATE	1,1,2-TRICHLOROETHANE	CIS-1,3-DICHLOROPROPENE
BARIUM	AROCLOR-1242	2,4,6-TRICHLOROPHENOL	CAPROLACTAM	1,1,2-TRICHLOROTRIFLUOROETHANE	CYCLOHEXANE
BERYLLIUM	AROCLOR-1248	2,4-DICHLOROPHENOL	CARBAZOLE	1,1-DICHLOROETHANE	DICHLORODIFLUOROMETHANE
CADMIUM	AROCLOR-1254	2,4-DIMETHYLPHENOL	DIBENZOFURAN	1,1-DICHLOROETHENE	ETHYLBENZENE
CALCIUM	AROCLOR-1260	2,4-DINITROPHENOL	DIETHYL PHTHALATE	1,2,4-TRICHLOROBENZENE	ISOPROPYLBENZENE
CHROMIUM	**PETROLEUM HYDROCARBONS**	2,4-DINITROTOLUENE	DIMETHYL PHTHALATE	1,2-DIBROMO-3-CHLOROPROPANE	METHYL ACETATE
COBALT	TPH (C08-C40)	2,6-DINITROTOLUENE	DI-N-BUTYL PHTHALATE	1,2-DIBROMOETHANE	METHYL CYCLOHEXANE
COPPER	**POLYCYCLIC AROMATIC HYDROCARBONS**	2-CHLORONAPHTHALENE	DI-N-OCTYL PHTHALATE	1,2-DICHLOROBENZENE	METHYL TERT-BUTYL ETHER
IRON	1-METHYLNAPHTHALENE	2-CHLOROPHENOL	HEXACHLOROBENZENE	1,2-DICHLOROETHANE	METHYLENE CHLORIDE
LEAD	2-METHYLNAPHTHALENE	2-METHYLPHENOL	HEXACHLOROBUTADIENE	1,2-DICHLOROPROPANE	STYRENE
MAGNESIUM	ACENAPHTHENE	2-NITROANILINE	HEXACHLOROCYCLOPENTADIENE	1,3-DICHLOROBENZENE	TETRACHLOROETHENE
MANGANESE	ACENAPHTHYLENE	2-NITROPHENOL	HEXACHLOROETHANE	1,4-DICHLOROBENZENE	TOLUENE
MERCURY	ANTHRACENE	3&4-METHYLPHENOL	ISOPHORONE	2-BUTANONE	TOTAL XYLENES
NICKEL	BENZO(A)ANTHRACENE	3,3'-DICHLOROBENZIDINE	NITROBENZENE	2-HEXANONE	TRANS-1,2-DICHLOROETHENE
POTASSIUM	BENZO(A)PYRENE	3-NITROANILINE	N-NITROSO-DI-N-PROPYLAMINE	4-METHYL-2-PENTANONE	TRANS-1,3-DICHLOROPROPENE
SELENIUM	BENZO(B)FLUORANTHENE	4,6-DINITRO-2-METHYLPHENOL	N-NITROSODIPHENYLAMINE	ACETONE	TRICHLOROETHENE
SILVER	BENZO(G,H,I)PERYLENE	4-BROMOPHENYL PHENYL ETHER	PENTACHLOROPHENOL	BENZENE	TRICHLOROFLUOROMETHANE
SODIUM	BENZO(K)FLUORANTHENE	4-CHLORO-3-METHYLPHENOL	PHENOL	BROMODICHLOROMETHANE	VINYL CHLORIDE
THALLIUM	CHRYSENE	4-CHLOROANILINE		BROMOFORM	
VANADIUM	DIBENZO(A,H)ANTHRACENE	4-CHLOROPHENYL PHENYL ETHER		BROMOMETHANE	
ZINC	FLUORANTHENE	4-NITROANILINE		CARBON DISULFIDE	
	FLUORENE	4-NITROPHENOL		CARBON TETRACHLORIDE	
	INDENO(1,2,3-CD)PYRENE	ACETOPHENONE		CHLOROBENZENE	
	NAPHTHALENE	ATRAZINE		CHLORODIBROMOMETHANE	
	PHENANTHRENE	BENZALDEHYDE		CHLOROETHANE	
	PYRENE	BIS(2-CHLOROETHOXY)METHANE		CHLOROFORM	

TABLE 4-2

TARGET ANALYTES ASSOCIATED WITH PHASE II GROUNDWATER SAMPLES COLLECTED FROM DPT BORINGS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

VOCs	
1,1,1-TRICHLOROETHANE	CHLOROBENZENE
1,1,2,2-TETRACHLOROETHANE	CHLORODIBROMOMETHANE
1,1,2-TRICHLOROETHANE	CHLOROETHANE
1,1,2-TRICHLOROTRIFLUOROETHANE	CHLOROFORM
1,1-DICHLOROETHANE	CHLOROMETHANE
1,1-DICHLOROETHENE	CIS-1,2-DICHLOROETHENE
1,2,4-TRICHLOROBENZENE	CIS-1,3-DICHLOROPROPENE
1,2-DIBROMO-3-CHLOROPROPANE	CYCLOHEXANE
1,2-DIBROMOETHANE	DICHLORODIFLUOROMETHANE
1,2-DICHLOROBENZENE	ETHYLBENZENE
1,2-DICHLOROETHANE	ISOPROPYLBENZENE
1,2-DICHLOROPROPANE	METHYL ACETATE
1,3-DICHLOROBENZENE	METHYL CYCLOHEXANE
1,4-DICHLOROBENZENE	METHYL TERT-BUTYL ETHER
2-BUTANONE	METHYLENE CHLORIDE
2-HEXANONE	STYRENE
4-METHYL-2-PENTANONE	TETRACHLOROETHENE
ACETONE	TOLUENE
BENZENE	TOTAL XYLENES
BROMODICHLOROMETHANE	TRANS-1,2-DICHLOROETHENE
BROMOFORM	TRANS-1,3-DICHLOROPROPENE
BROMOMETHANE	TRICHLOROETHENE
CARBON DISULFIDE	TRICHLOROFLUOROMETHANE
CARBON TETRACHLORIDE	VINYL CHLORIDE

4.3 FIELD INVESTIGATION ACTIVITIES

4.3.1 Utility Clearance/Site Access

Prior to the commencement of any intrusive activities, proposed drilling locations were located using a global positioning system (GPS). Tetra Tech staked the drilling locations on June, 6, 2011, and coordinated with Station personnel to identify and mark out utilities that may have been present within the proposed intrusive activity areas.

4.3.2 Soil Borings/Hand Augering

Ten subsurface soil samples (plus one subsurface soil field duplicate sample) were collected for chemical analysis from 10 locations (JAX45-SB05 through JAX45-SB14). Soil samples were collected from 0.5 to 2.5 feet bgs using hand augers and submitted to Katahdin Analytical Services, Inc. (Katahdin) located in Scarborough, Maine for analyses. The sample aliquot for target compound list (TCL) VOCs was collected first, prior to disturbing the soil, and was placed in Terra Core samplers. Then the remaining soil from the

selected interval was homogenized and placed in wide-mouth glass containers for analysis of TCL SVOCs, including low-level PAHs, PCBs, TPH, and target analyte list (TAL) metals, as required by the laboratory and in accordance with the SAP. Soil sample log sheets were generated for each soil sample collected and are provided in Appendix A.

4.3.3 Temporary Well Points and Monitoring Well Installation

Eleven temporary and four permanent well borings were advanced by DPT at PSC 45 for the RI. On May 4, 2011, one cluster of one shallow (JAX45-B200-MW01S) and one deep (JAX45-B200-MW01D) monitoring well was installed at boring 45MW01. One cluster of one shallow (JAX45-B200-MW02S) and one deep (JAX45-B200-MW02D) monitoring well was installed at boring 45MW02.

Eleven temporary well points (45DPT-12 through 45DPT-22) were installed during the field investigations using DPT methods with stainless steel well material. Groundwater samples were collected by advancing the sample rods to the desired depth, then revealing a 4-foot stainless steel screen to the formation. Rigid Teflon® tubing, attached to a peristaltic pump with medical-grade flexible silicon tubing, was inserted down the borehole. The tubing intake was set at the approximate midpoint of the screen. The screened interval was then purged until three saturated intervals had been removed or the groundwater became visibly clear. Groundwater samples were then collected for analysis. All development water was containerized for disposal in 55-gallon steel drums. The temporary wells were abandoned by grouting the borehole to the ground surface using a tremie pipe after collecting water levels.

The four monitoring wells were constructed of 1-inch inside diameter, Schedule 40, flush-joint, polyvinyl chloride (PVC) riser pipe, and flush-joint, factory-slotted, pre-packed well screen. Each section of casing and screen was National Sanitation Foundation-approved. Well screen lengths were 5 feet at JAX45-B200-MW01D and JAX45-B200-MW02D and 10 feet at JAX45-B200-MW01S and JAX45-B200-MW02S with a 0.010-inch slot size.

Wells were installed by joining the well riser and screen and lowering them through the augers to the desired depth within the well boring. A silica sand filter pack was installed in the boring annulus around the well screen as the augers were withdrawn from the boring. The sand pack was installed from the bottom of the hole to a level approximately 1 to 2 feet above the top of the well screen. A bentonite pellet seal, approximately 1 to 2 feet thick, was installed above the sand pack and hydrated as per the manufacturer's recommendation, to allow for hydration prior to grouting the remainder of the annulus. The remainder of the annulus of the boring (from the seal to the ground surface) was tremie backfilled, if required, with a cement/bentonite grout. The depths to the top of all backfill materials were constantly monitored during the well installation process by means of a weighted tape.

A protective aluminum casing equipped with a locking aluminum cap (aluminum hinged or slip-type) was grouted in place around the permanent wells. An 8-inch diameter outer casing was used for the flush-mounted wells installed at the site. A concrete apron was completed around the protective casing of each well, measuring 3 feet by 3 feet, with a thickness of 6 inches bgs and the top of the pad installed flush with the ground surface. A 3/8-inch diameter drain hole was drilled through each stick-up protective casing approximately 0.5 foot above the concrete apron. For flush-mounted wells, bolt-down cast iron lids were installed. Gripper-type locking caps were attached to the PVC risers of all wells.

The monitoring wells were developed as soon as practical after well installation, but not sooner than 24 hours after grout set time, and optimally after the protective casing installation. A well was considered fully developed when the water was visually clear and/or the total purge water volume removed from the well was a minimum of five times the standing water volume. Monitoring well development logs are included in Appendix A.

4.3.4 Quality Assurance/Quality Control Samples

Quality assurance/quality control (QC) samples collected during the RI included field duplicates, trip blanks, equipment rinsate blanks, and temperature blanks, which were collected in accordance with the PSC 45 SAP (Tetra Tech, 2011a).

4.3.5 Field Decontamination Procedures

Decontamination of non-dedicated sampling equipment (e.g., flow through cells) was conducted prior to and between sampling at each location to prevent cross-contamination. Decontamination consisted of a soapy water (laboratory-grade detergent) rinse followed by a deionized water rinse. All down-hole drilling equipment, sampling tools, and the rear of the drill rig were steam-cleaned prior to use. Down-hole equipment was decontaminated between well borings, and the back of the rig was steamed cleaned at the completion of the field activities at PSC 45. Decontamination fluid was containerized with the purge water in 55-gallon drums, as described in Section 4.3.6.

4.3.6 Investigation-Derived Waste Management

Purge water from groundwater sampling, monitoring well development, and decontamination fluids, from monitoring well installation was containerized in Department of Transportation (DOT)-approved (DOT specification 17C) 55-gallon drums and stored in a centralized location near PSC 45. Personal protective equipment, acetate liners, and other disposable investigation-derived waste (IDW) were double bagged and disposed of on base in designated dumpsters. The drums were labeled, sealed, and temporarily stored, pending completion of analytical results.

All IDW was disposed in accordance with the PSC 45 SAP (Tetra Tech, 2011a). In total, four 55-gallon drums of mixed purge and decontamination water were removed by the base for proper off-site disposal.

4.3.7 Land Survey

A GPS survey was conducted to locate all sampling points and monitoring wells using the Florida State Plane Coordinate System and relative to the North American Datum 1983.

4.4 PHASE I

4.4.1 Phase I Monitoring Well Installation

Based on the results of the SI, four monitoring wells were designed and installed using DPT. The two upgradient wells (JAX45-B200-MW01S and JAX45-B200-MW02S) were installed to an approximate depth of 13 feet bgs and 40 feet bgs, respectively. The two downgradient wells (JAX45-B200-MW02S and JAX45-B200-MW02D) were installed to an approximate depth of 13 feet bgs and 40 feet bgs, respectively. No soil sampling was performed during the installation of the monitoring wells. Monitoring well locations are provided on Figure 4-1, and construction details are provided in Appendix A.

The monitoring wells were developed in accordance with the SAP (Tetra Tech, 2011a).

4.4.2 Water Level Measurements

Water level measurements were collected from the eleven temporary wells on June 20 to 23, 2011, and one round of synoptic water level measurements was collected from the four permanent monitoring wells on May 4, 2011. The water levels were measured using an electric water level indicator relative to the surveyed reference point on each monitoring well. Groundwater level measurement logs for the permanent and temporary monitoring wells are provided in Appendix A.

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S. STROZ	05/05/11
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M. TRAXLER	12/14/12
REVISED BY	DATE
J.MADDEN	04/23/13
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AS NOTED	

NAVFAC

MONITORING WELL LOCATIONS
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
112G01511	0112
APPROVED BY	DATE
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APPROVED BY	DATE
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FIGURE NO.	REV
FIGURE 4 - 1	0

4.4.3 Phase I Monitoring Well Groundwater Sampling

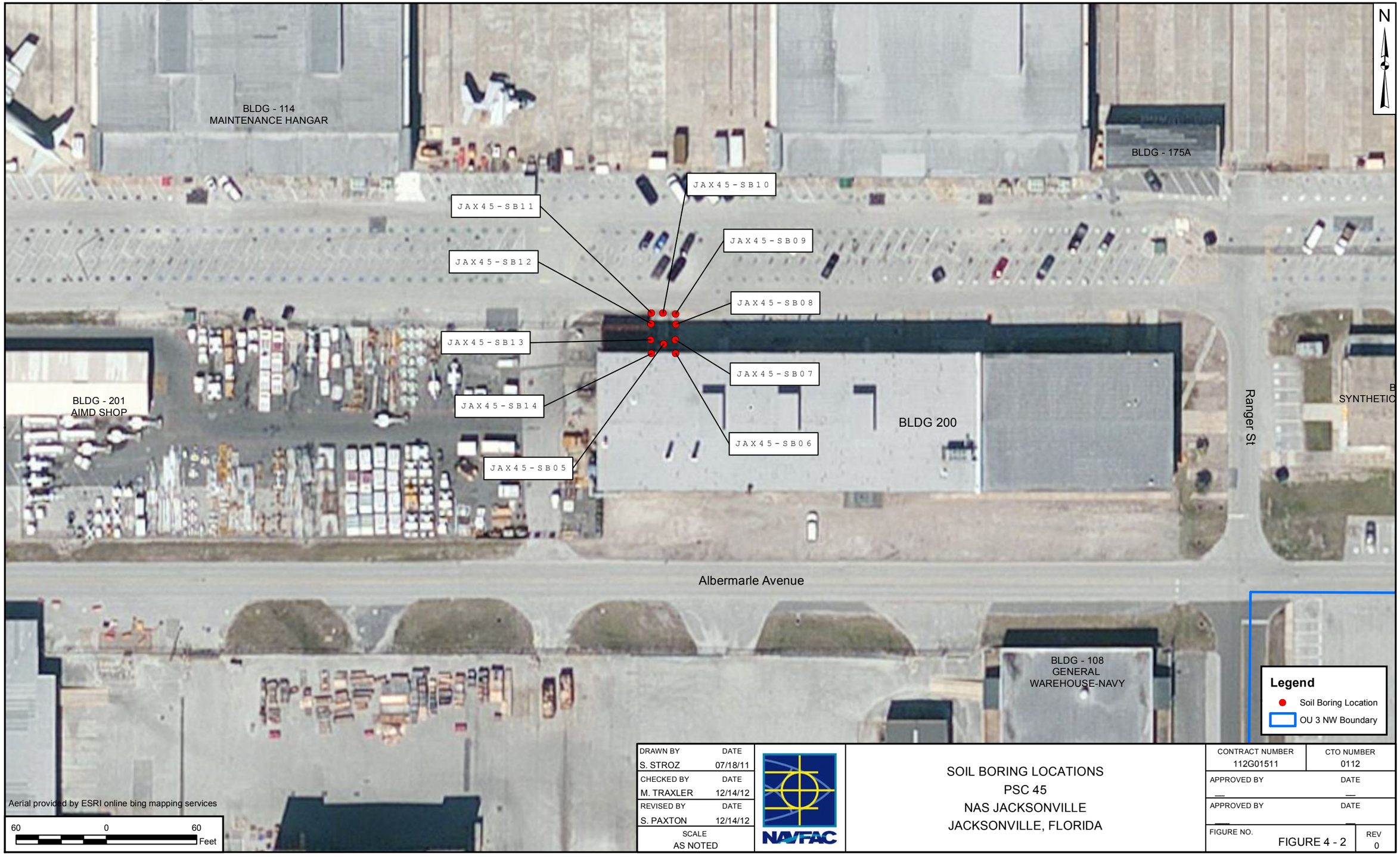
The Phase I groundwater sampling at PSC 45 took place on May 4, 2011. Groundwater samples were collected from the four newly installed monitoring wells through rigid Teflon® tubing that was attached to a peristaltic pump with medical-grade flexible silicon tubing. The rigid Teflon® tubing was inserted down the groundwater monitoring well and set at the approximate midpoint of the screen. The groundwater monitoring wells were purged until three saturated intervals had been removed or the groundwater become visibly clear. Geochemical parameters (dissolved oxygen [DO], specific conductivity, pH, temperature, salinity, and oxidation-reduction potential [ORP]) were measured during purging using a YSI 556 water quality meter equipped with an in-line flow through cell. Turbidity was measured using a LaMotte 2020e turbidimeter during purging. The pumping rate was minimized during purging to attempt to achieve turbidity readings of less than 10 Nephelometric turbidity units. All monitored parameter measurements including time, water level, purge rate, temperature, pH, specific conductance, turbidity, DO, ORP, and salinity were recorded on the low-flow purge data sheet (see Appendix A). Copies of the groundwater sampling sheets that contain information on purge volume and geochemical parameters (e.g., DO, temperature, pH) are included in Appendix A. Groundwater samples were collected directly from the pump discharge tubing after disconnecting the in-line flow through cell. Groundwater samples were collected in laboratory-supplied containers after three consistent readings of pH, conductivity, temperature, and turbidity (±10%), immediately placed on ice, and delivered under proper chain-of-custody protocol to Katahdin.

The Phase I groundwater samples were analyzed for the full list of target analytes (see Table 4-1) utilizing the following methods: metals (USEPA Method 6010C, except mercury where USEPA 7470A was used), PCBs (USEPA Method 8082), TPH (FDEP Florida Residual Petroleum Organic [FL-PRO] Method), PAHs (USEPA Method 8270C selected ion monitoring [SIM]), SVOCs (USEPA Method 8270C), and VOCs (USEPA Method 8260B). The groundwater analytical results are discussed in Section 5.0.

Field forms are provided in Appendix A. The validated laboratory data packages and Form I results are provided in Appendix C.

4.4.4 Phase II Soil Sampling Approach

The locations and sampling interval of the soil samples were based upon the results of the SI. Ten soil borings were advanced by hand auger in the area around the former disposal pit (JAX45-SB05 through JAX45-SB14). The soil sample depth interval was 0.5 to 2.5 feet bgs in accordance with the RI SAP (Tetra Tech, 2011a). The soil boring locations are shown on Figure 4-2.



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REVISED BY / DATE	S. PAXTON 12/14/12
SCALE	AS NOTED

NAVFAC

SOIL BORING LOCATIONS
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	112G01511
CTO NUMBER	0112
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FIGURE NO.	FIGURE 4 - 2
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4.4.5 Phase II DPT-Derived Groundwater Sampling Approach

The locations and sample depth intervals of the DPT-derived groundwater samples were determined based upon the results from the SA and the results from the Phase I groundwater sampling effort. DPT borings were advanced at 11 locations (JAX45-DPT12 through JAX45-DPT22). The four depth intervals from which the groundwater samples were collected were 12 to 16, 20 to 24, 40 to 44, and 60 to 64 feet bgs. The DTP boring locations are presented on Figure 4-3.

4.5 PHASE II

4.5.1 Phase II Soil Sampling

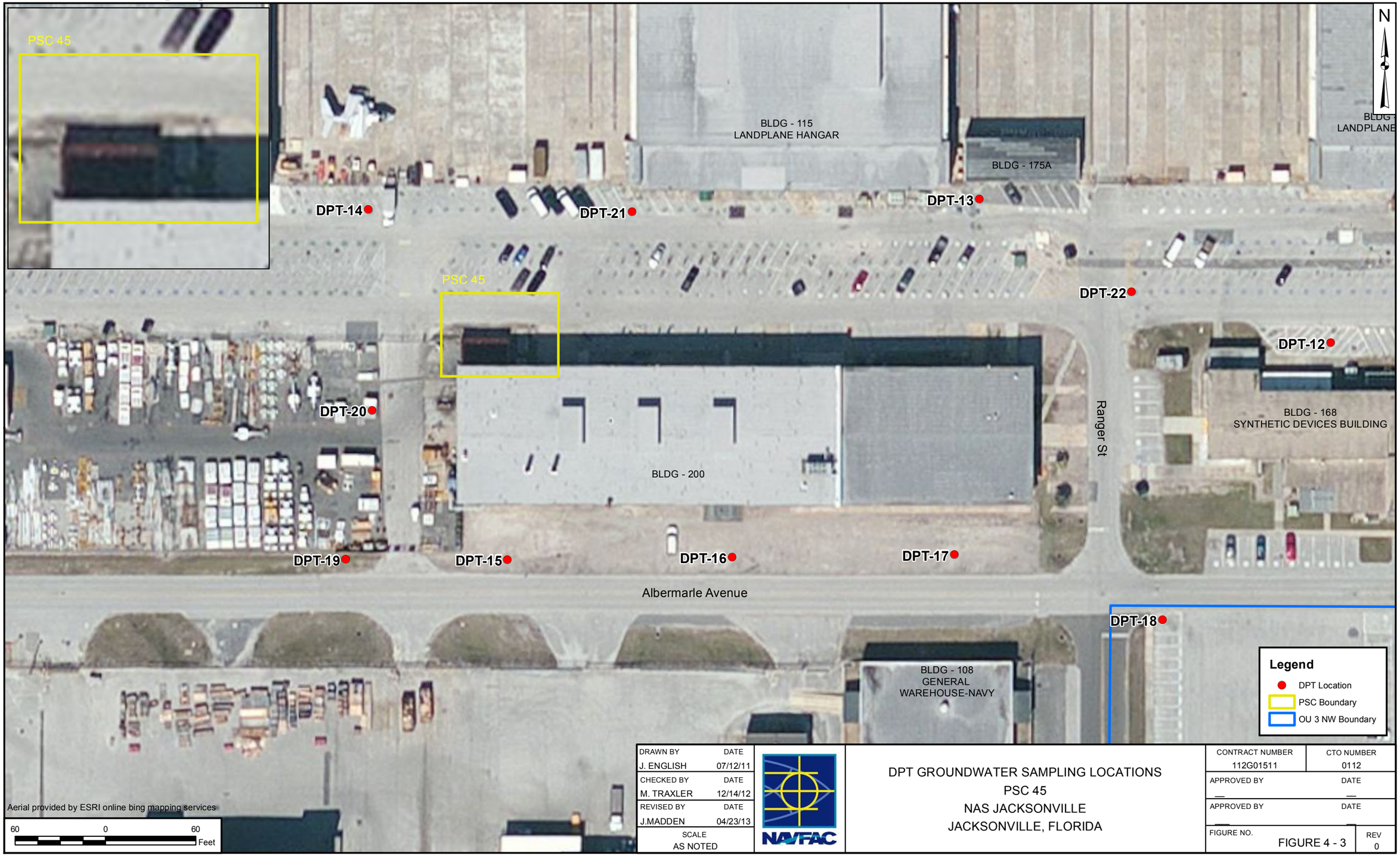
The Phase II soil sampling was conducted on June 24, 2011. Soil samples were collected with a stainless steel sample bucket in accordance with FDEP Standard Operating Procedure (SOP) FS 3000 (FDEP, 2008). The syringe procedure (SW-846 Method 5035), however, was used to collect soil samples that were analyzed for VOCs. The soil samples were immediately placed on ice and delivered under proper chain-of-custody protocol to Katahdin.

The Phase II soil samples were analyzed for the full list of target analytes (see Table 4-1) utilizing the following methods: metals (USEPA Method 6010C; except mercury where USEPA 7471B was used), PCBs (USEPA Method 8082), TPH (FDEP Method FL-PRO), PAHs (USEPA Method 8270C SIM), SVOCs (USEPA Method 8270C), and VOCs (USEPA Method 8260B). The soil analytical results are discussed in Section 5.0.

Field forms are provided in Appendix A. The validated laboratory data packages and Form I results are provided in Appendix C.

4.5.2 Phase II DPT Temporary Well Groundwater Sampling

The Phase II groundwater sampling was performed from June 20 through June 23, 2011. Groundwater samples were collected using a DPT temporary well groundwater sampling system in conjunction with a peristaltic pump and sterile Teflon® and medical-grade silicon tubing. In general, the DPT groundwater sampling system consists of an enclosed 4-foot groundwater sampler attached to 2.125-inch outside diameter steel drive rods, which are hammer driven via DPT to the maximum desired sampling depth (approximately 70 feet bgs). Groundwater samples were collected from four depth intervals (12 to 16, 20 to 24, 40 to 44, and 60 to 64 feet bgs). When the desired sampling depth was reached, the outer sleeve of the groundwater sampler was retracted to expose a 4-foot mill-slotted (0.02-inch) well point screen to the formation.



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SCALE	
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DPT GROUNDWATER SAMPLING LOCATIONS
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
112G01511	0112
APPROVED BY	DATE
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FIGURE NO.	REV
FIGURE 4 - 3	0

Teflon® tubing was then lowered through the inner core of the DPT drive rod to the bottom of the borehole and attached to a peristaltic pump using silicon tubing. To minimize sediment loading, the tubing was placed 2.5 feet from the bottom of each borehole in the center of the screen. A groundwater sample was collected once the purge water become visibly clear. In cases where the purge water did not become visibly clear due to fine sediments in this area, purging was conducted to reduce turbidity in accordance with the method in FDEP SOP FS 2200 (FDEP, 2008) before the sample was collected. Groundwater samples were then collected and immediately placed on ice and delivered under proper chain-of-custody protocol to Katahdin.

The Phase II groundwater samples were analyzed for a reduced list of target analytes (see Table 4-2) using USEPA Method 8260B. The groundwater analytical results are discussed in Section 5.0.

Field forms are provided in Appendix A. The validated laboratory data packages and Form I results are provided in Appendix C.

4.6 ANALYTICAL METHODOLOGY

4.6.1 Analytical Methods

Chemical analyses for TCL VOCs (USEPA SW-846 Method 8260B), TCL SVOCs (USEPA SW-846 Method 8270C), low level TCL PAHs (USEPA SW-846 Method 8270C SIM), TCL PCBs (USEPA SW-846 Method 8082), TPH (FDEP FL-PRO Method), and TAL metals (USEPA SW-846 Method 6010C/7470A/7471B) were performed by Katahdin. Katahdin is a Department of Defense (DoD) Environmental Laboratory Accreditation Program accredited laboratory and Florida Department of Health-approved laboratory. All samples were sent by FedEx under chain-of-custody (see Appendix A) to Katahdin for analysis.

Detailed laboratory analytical reports and the data validation reports are presented in Appendix C and include sample results for soil and groundwater.

4.6.2 Data Usability Assessment

The usability of the data generated during the RI directly affects whether project objectives have been achieved. All of the results from analytical laboratory samples were validated according to several specifications. A description of the data review processes used to determine whether analytical laboratory data are of acceptable technical quality for use in decision making and summary tables that support the review of the data collected from PSC 45 are presented below.

Data verification is a process used to ensure that contractual requirements were satisfied. Data validation is a comparison of data quality indicators (DQIs) against prescribed acceptance criteria to assess analytical method performance. The DQIs include measures to assess the bias and precision of the analytical calibrations and sample analyses. Together, verification and validation are the first steps in evaluating the DQIs for precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). Each of the PARCCS is discussed in greater detail below, including information on the data validation process, qualified results, rejected data, laboratory completeness, and a comparison of validated detection limits (DLs) for non-detected compounds to PSLs.

Assignment of data qualification flags conformed to rules established in the USEPA guidance documents Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review (USEPA, 1999), CLP National Functional Guidelines for Inorganic Data Review (USEPA, 2004a), and the DoD Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (DoD, 2010) to the greatest extent practicable for non-contract laboratory program (non-CLP) data. Numerical criteria used in conjunction with these rules were specified in the PSC 45 SAP. All field samples that were originally specified in the SAP (Tetra Tech, 2011a) were submitted to the laboratory and analyzed as part of the project.

The data collected during the PSC 45 RI were determined to be of sufficient quality to be used for determining the nature and extent of chemical contaminants identified at the site. QC samples collected during the May and June 2011 sampling events included five field duplicate samples, four matrix spike/matrix spike duplicate samples, two equipment rinsate blanks, and four trip blanks, which met or exceeded the minimum quantities defined in the SAP. USEPA SW-846 methods were used to analyze the samples for VOCs, SVOCs (including low level PAHs), PCBs, and metals, and the FL-PRO Method was used to analyze TPH. Data validation was performed on all organic data in accordance with the SAP following the CLP Functional Guidelines for Organic Data Review (USEPA, 1999), on all inorganic (metals) data following the CLP Functional Guidelines for Inorganic Data Review (USEPA, 2004a), and in conjunction with the DoD QSM Version 4.2 (DoD, 2010) and method specific criteria presented in the SAP.

Completeness

Sampling issues, or field or laboratory conditions, were identified that caused a rejection (R or UR) of 0 of the 4,479 total data points, resulting in 100% useable data. Samples were also qualified as estimated (J or UJ) for one or more of the following minor non-compliances: blank contamination, calibration non-compliances, field duplicate imprecision, percent differences between columns, and uncertainty near the DL. Qualified data are considered to be acceptable for their intended use.

Precision and Accuracy

Field duplicate precision measurements exceeded the acceptance criteria of 50 relative percent difference (RPD) for all soil samples and 30 percent RPD for all aqueous samples (or two times the laboratory reporting limit for non-metals and four times the laboratory reporting limit for metals) for one or more analytes in two of the four field duplicate data sets. A number of accuracy measurements exceeded the acceptance criteria for surrogate, internal standard, or continuing calibration verification percent recoveries for detected and non-detected analytes. These data were qualified as estimated (J or UJ) and are considered usable. No problems were associated with data representativeness.

Comparability and Sensitivity

Some results were flagged with the qualifiers J, U, or UJ because the data were outside QC acceptance criteria. For all detected target analytes in soil and groundwater, the Limits of Quantitation (LOQs) were sufficiently sensitive (below the corresponding PSLs for human health residential direct contact, migration to groundwater, and/or ecological exposure criteria) as originally identified in Worksheet #15 of the SAP (Tetra Tech, 2011a). Any positive detection between the LOQ and the laboratory DL were qualified as estimated (J) and are considered usable.

4.7 DATA COMPARISON TO PROJECT SCREENING LEVELS

The PSLs used to evaluate the chemical concentrations detected in site media to aid in decision making at PSC 45 are identified in the SAP (Tetra Tech, 2011a). USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites for residential soil direct contact (USEPA, 2012a), USEPA RSL migration to groundwater risk-based soil screening levels (RBSSLs) (USEPA, 2012a), USEPA RSLs for tap water (USEPA, 2012a), USEPA Maximum Contaminant Levels (MCLs) (USEPA, 2012b), FDEP SCTLs, FDEP Leachability Cleanup Target Levels (CTLs), and FDEP Groundwater CLT (GCTLs) (FDEP, 2005), and facility background levels (see Appendix D) were evaluated during PSL selection. For groundwater, if an MCL was available for an analyte, that value was chosen as the PSL; if no MCL was available, the tap water RSL was chosen as the PSL. If the facility background concentration exceeded this value, however, the facility background level was chosen as the PSL. Similarly, residential RSLs were used as the soil PSL unless facility background concentrations were greater, in which case, the facility background level was chosen as the PSL.

Additionally, the following screening levels were used for groundwater in the ERA as a conservative measure of the potential concentration in surface water after the groundwater migrates to the St. Johns River: FDEP Class III Predominantly Marine surface water Ecological Screening Values (ESVs) (FDEP, 2012), USEPA Region 4 chronic saltwater surface water ESVs (USEPA, 2001), marine chronic

surface water screening values in Screening Quick Reference Tables derived for the National Oceanic and Atmospheric Administration (NOAA) (Buchman, 2008), and USEPA Region 3 marine surface water screening benchmarks (USEPA, 2006). These PSLs were identified in more detail in the PSC 45 SAP (Tetra Tech, 2011a). Detailed discussions regarding site-specific PSL evaluations in comparison with validated analytical results for human health and ecological exposures are presented in the HHRA in Section 7.0 and the ERA in Section 8.0.

5.0 NATURE AND EXTENT OF CONTAMINATION

This section summarizes and evaluates results of the sampling activities supporting the RI as described in Sections 3.0 and 4.0. The validated laboratory data packages along with the Form I results (analytical summary sheets) from the laboratory are presented in Appendix C.

The quality of the chemical analytical data collected during the investigation of PSC 45 was documented. The analytical data validation process was completed for all laboratory data packages in accordance with the USEPA Functional Guidelines for Organic Data Validation (USEPA, 1999), the National Functional Guidelines for Inorganic Review (USEPA, 2004a), and the DoD QSM for Environmental Laboratories Version 4.2 (DoD, 2010). The data set compiled using these guidelines is considered acceptable for use in this RI.

Discussion of the nature and extent of contamination at PSC 45 is structured in general accordance with the USEPA RI/FS guidance (USEPA, 1988). Sources of contamination are discussed first, the PSLs are reviewed next, and then sampled media are discussed. Within the media discussion, the following analytical fractions are discussed: VOC, SVOCs including PAHs, PCBs, TPH, and metals. Following the evaluation of each analytical fraction for a particular medium, a summary of relevant results and findings is presented.

5.1 SOURCES OF CONTAMINATION

The source of contamination at PSC 45 is the former Building 200 Wash Rack Disposal Pit (see Figure 2-3). The pit was a French drain design that leached directly into the subsurface soil. The disposal pit was gravel filled with an earthen bottom and a concrete lid approximately 4 feet in diameter. The disposal pit received overflow from a subfloor oil/water separator located in the Wash Rack Room. This room is located approximately 20 feet west of the disposal pit.

In the past, ground support equipment was cleaned in the wash rack and, while in the wash rack, solvents were used to strip paint off the equipment. For an unknown period of time (up to 1991), the disposal pit received overflow from an oil/water separator associated with the wash rack. The disposal pit was discovered in 1991 during plumbing repair work at Building 200. After the pit was discovered, the connection from the oil/water separator to the pit was plugged, and waste from the pit was removed and disposed of as hazardous waste.

5.2 PROJECT SCREENING LEVELS

The Partnering Team determined that chemical data would be compared against NAS Jacksonville surface soil, subsurface soil, and groundwater background values and current USEPA and FDEP residential subsurface soil and groundwater risk-based criteria to determine if there are potentially unacceptable levels of target analytes present in these environmental media. These values where then used to help define the horizontal and vertical extent of contamination. The PSLs were selected as follows.

5.2.1 Soil

The soil PSLs are derived from the following:

- FDEP SCTLs per Chapter 62-777, Florida Administrative Code (F.A.C.), Table 2 (Soil), direct exposure residential (FDEP, 2005).
- FDEP Leachability criteria (FDEP, 2005).
- NAS Jacksonville surface and subsurface soil background values (see Appendix D).
- USEPA RSLs for Chemical Contaminants at Superfund Sites – Residential Direct Contact (USEPA, 2012a).
- USEPA RSLs for Chemical Contaminants at Superfund Sites – Migration to Groundwater (USEPA, 2012a).

5.2.2 Groundwater

The groundwater PSLs are derived from the following:

- FDEP GCTLs per Chapter 62-777, F.A.C., Table 1 (Groundwater) (FDEP, 2005).
- Florida Primary Drinking Water Standards per Chapter 62-550.310, F.A.C.
- Florida Secondary Drinking Water Standards per Chapter 62-550.320, F.A.C.
- USEPA RSLs for Chemical Contaminants at Superfund Sites – Tap Water Values (USEPA, 2012a).
- USEPA Maximum Contaminant Levels (MCLs) (USEPA, 2012b)
- NAS Jacksonville groundwater background values (see Appendix D).

5.3 CONTAMINATION ASSESSMENT

This section discusses the data collected during the field investigation performed in support of the RI.

5.3.1 Phase I – Groundwater Sample Results

The Phase I groundwater sampling at PSC 45 took place on May 4, 2011 (see Figure 4-1). A summary of detections is presented in Table 5-1, and a tag map showing detections exceeding PSLs is presented on Figure 5-1. A summary of the complete analysis is presented in Table E-1 of Appendix E.

A review of Figure 5-1 shows most of the contamination is in the shallow wells. . Manganese, a naturally occurring contaminant[1] (metal) was detected in exceedance of the applicable PSLs in site well JAX45-B200-MW01S. Ten organic compounds were detected in exceedance of the applicable PSLs in the shallow site well (JAX45-B200-MW01S). Seven organic compounds were detected in exceedance of the applicable PSLs in the downgradient shallow well (JAX45-B200-MW02S). Benzo(a)pyrene (BAP) was the only organic compound detected in exceedances of the applicable PSLs in the downgradient deep well (JAX45-B200-MW02D). The results by analyte groups are discussed below.

Metals

Manganese was the only metal detected at a concentration in exceedance of the applicable PSL (see Table 5-1 and Figure 5-1).

PCBs

No PCBs were detected in any of the groundwater samples (see Table E-1 in Appendix E).

Petroleum Hydrocarbons

TPH (with carbon ranges from C_{08}-C_{40}) was detected in exceedance of the PSL of 5,000 micrograms per liter (µg/L) in the shallow site well at a concentration of 12,000 µg/L. TPH (C_{08}-C_{40}) was not detected in the deep site well or in the deep downgradient well. This analyte was detected at a low concentration (310 J µg/L) in the shallow downgradient well (see Table 5-1 and Figure 5-1).

PAHs

Five PAHs were detected in excess of their respective PSLs in at least one of the four monitoring wells (see Table 5-1 and Figure 5-1). 1-Methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected in exceedance of the applicable PSLs in the shallow site well. Benzo(a)anthracene was detected in exceedance of the applicable PSL in the shallow downgradient well. BAP was detected in exceedance of the applicable PSL in the deep downgradient well.

[1] The FDEP defines background concentrations as “concentrations of contaminants that are naturally occurring in the groundwater, surface water, soil, or sediment in the vicinity of the site” per Chapter 62-780.200(5), F.A.C.

TABLE 5-1

SUMMARY OF DETECTIONS FROM PHASE I GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	PSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATON		JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE		20110504	20110504	20110504	20110504
METALS (µg/L)					
ALUMINUM	147318	218 J	251 J	2420	58.7 J
ARSENIC	13.2	1.43 U	1.7 J	1.43 U	8.2
BARIUM	290	34.2	20.3	37.6	32.8
CALCIUM	NC	8760	96600	32900	8420
CHROMIUM	208	0.88 J	2.6 J	6 J	0.36 U
COBALT	22.6	3.7 J	0.39 J	0.74 J	8.7 J
COPPER	62	0.63 U	1.5 J	3.5 J	0.63 U
IRON	68292	1210	4860	7720	19800
LEAD	45.08	1.07 U	1.1 J	2.4 J	1.07 U
MAGNESIUM	NC	2050	5850	11500	2310
MANGANESE	204	160	**231**	104	179
MERCURY	0.98	0.01 U	0.01 U	0.03 J	0.01 U
NICKEL	74.8	1.6 J	0.64 J	2.5 J	0.71 J
POTASSIUM	NC	1190	5490	2710	1410
SELENIUM	13.8	2.36 U	2.36 U	3 J	2.36 U
SILVER	9.4	0.27 U	0.27 U	0.27 U	0.43 J
SODIUM	160000	9220	8520	3770	8160
VANADIUM	294	0.29 J	1.1 J	5.2 J	0.23 U
ZINC	173.2	17.5 J	11.7 J	5.7 J	11.6 J
PETROLEUM HYDROCARBONS (µg/L)					
TPH (C08-C40)	5000	140 U	**12000**	140 U	310 J
POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)					
1-METHYLNAPHTHALENE	0.97	0.069 U	**12**	0.069 U	0.065 U
2-METHYLNAPHTHALENE	2.7	0.078 U	**9.3**	0.078 U	0.074 U
ACENAPHTHENE	20	0.065 U	0.085 J	0.065 U	0.062 U

TABLE 5-1

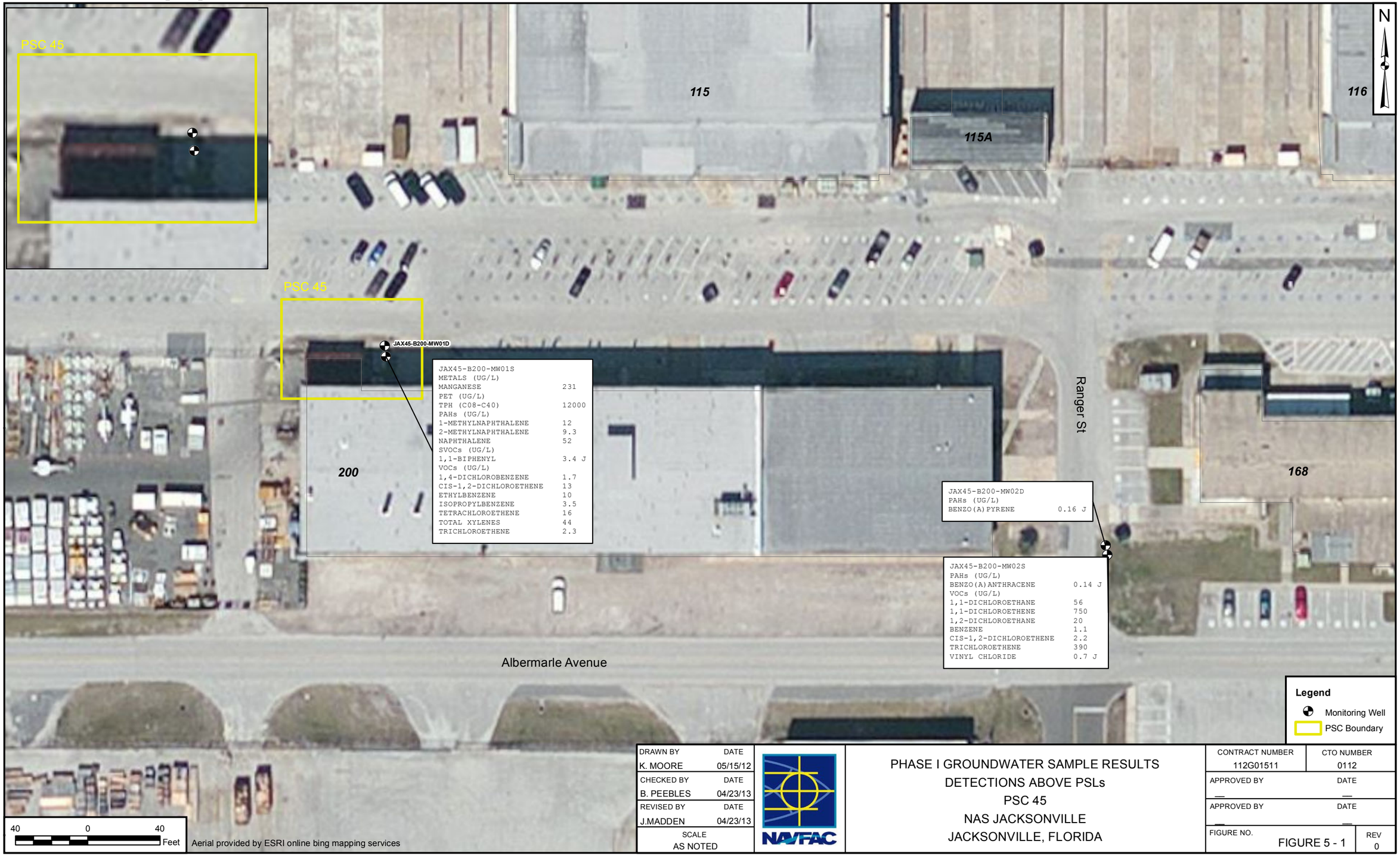
SUMMARY OF DETECTIONS FROM PHASE I GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	PSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATON		JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE		20110504	20110504	20110504	20110504
POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)					
BENZO(A)ANTHRACENE	0.029	0.046 U	0.047 U	0.046 U	**0.14 J**
BENZO(A)PYRENE	0.0029	0.067 U	0.068 U	**0.16 J**	0.063 U
FLUORENE	22	0.062 U	0.081 J	0.062 U	0.059 U
NAPHTHALENE	0.14	0.065 U	**52**	0.065 U	0.062 U
SEMIVOLATILES (µg/L)					
1,1-BIPHENYL	0.083	2.7 U	**3.4 J**	2.7 U	2.6 U
2,4-DIMETHYLPHENOL	27	4.4 U	12	4.4 U	4.2 U
DI-N-BUTYL PHTHALATE	67	2.5 U	4.1 J	2.5 U	2.4 U
VOLATILES (µg/L)					
1,1-DICHLOROETHANE	2.4	0.21 U	0.21 U	0.21 U	**56**
1,1-DICHLOROETHENE	7	0.35 U	0.35 U	0.38 J	**750**
1,2-DICHLOROBENZENE	28	0.15 U	8.6	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	0.2 U	0.2 U	0.2 U	**20**
1,4-DICHLOROBENZENE	0.42	0.24 U	**1.7**	0.24 U	0.24 U
BENZENE	0.39	0.26 U	0.34 J	0.26 U	**1.1**
CIS-1,2-DICHLOROETHENE	2.8	0.21 U	**13**	0.21 U	2.2
CYCLOHEXANE	1300	0.31 U	1.6	0.31 U	0.31 U
ETHYLBENZENE	1.3	0.21 U	**10**	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	0.23 U	**3.5**	0.23 U	0.23 U
METHYL CYCLOHEXANE	NC	0.3 U	3.4	0.3 U	0.3 U
TETRACHLOROETHENE	3.5	0.4 U	**16**	0.4 U	0.4 U
TOLUENE	40	0.27 U	24	0.27 U	0.36 J
TOTAL XYLENES	19	0.25 U	**44**	0.25 U	0.25 U
TRICHLOROETHENE	0.26	0.28 U	**2.3**	**0.31 J**	**390**
VINYL CHLORIDE	0.015	0.25 U	0.25 U	0.25 U	**0.7 J**

TABLE 5-1

SUMMARY OF DETECTIONS FROM PHASE I GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA
Page 3 of 3

Notes:
NC = no criteria
J = estimated value
U = undetected value
Shaded cells indicate an exceedance of the PSL



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B. PEEBLES	04/23/13
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J.MADDEN	04/23/13
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PHASE I GROUNDWATER SAMPLE RESULTS
DETECTIONS ABOVE PSLs
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
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FIGURE NO.	REV
FIGURE 5 - 1	0

SVOCs

One SVOC (1,1-biphenyl) was detected in excess of the applicable PSL of 0.5 µg/L. This analyte was detected at a concentration of 3.4 J µg/L in the shallow site well. No other SVOCs were detected in excess of the applicable PSLs in any of the four monitoring wells (see Figure 5-1 and Table 5-1).

VOCs

Eleven VOCs were detected in excess of the applicable PSLs in the shallow site well and in the shallow downgradient well (see Figure 5-1 and Table 5-1). Seven VOCs were detected in excess of the applicable GCTLs in the shallow site well (JAX45-B200-MW01S). These VOCs were 1,4-dichlorobenzene, cis-1,2-dichloroethene, ethylbenzene, isopropylbenzene, tetrachloroethene, total xylenes, and trichloroethene. A different set of six VOCs were detected in excess of the applicable PSLs in the shallow downgradient well (JAX45-B200-MW02S). These included 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, trichloroethene, and vinyl chloride. No VOCs were detected in excess of the applicable PSLs in the deep site well (JAX45-B200-MW01D) or the deep downgradient well (JAX45-B200-MW02D).

5.3.2 Phase II – Soil Sample Results

The Phase II soil sampling was conducted on June 24, 2011 (see Figure 4-2). A summary of detections is presented in Table 5-2 and a tag map showing detections above PSLs is presented on Figure 5-2. A summary the complete analysis is presented in Table E-2 of Appendix E. The results by analyte groups are discussed below.

Metals

One or more metals were detected in excess of the applicable PSLs in each of the 10 sample locations (see Table 5-2 and Figure 5-2). Arsenic was detected in exceedance of the applicable PSL in soil samples collected from all 10 sample locations (see Table 5-2). Cadmium was detected in exceedance of the applicable PSL of 7.5 milligrams per kilogram (mg/kg) in one soil sample (JAX-45-SB12-SB-06242011) at a concentration of 15.8 mg/kg, but the concentration in the duplicate soil sample (JAX-45-SB12-SB-06242011-D) was 3.6 J mg/kg, which is below the applicable PSL. Chromium was detected in exceedance of the applicable PSL in soil samples collected from 9 of 10 sample locations (see Table 5-2).

PCBs

No PCBs were detected in any of the soil samples (see Table E-2 in Appendix E).

TABLE 5-2

SUMMARY OF DETECTIONS FROM PHASE II SOIL ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA
Page 1 of 2

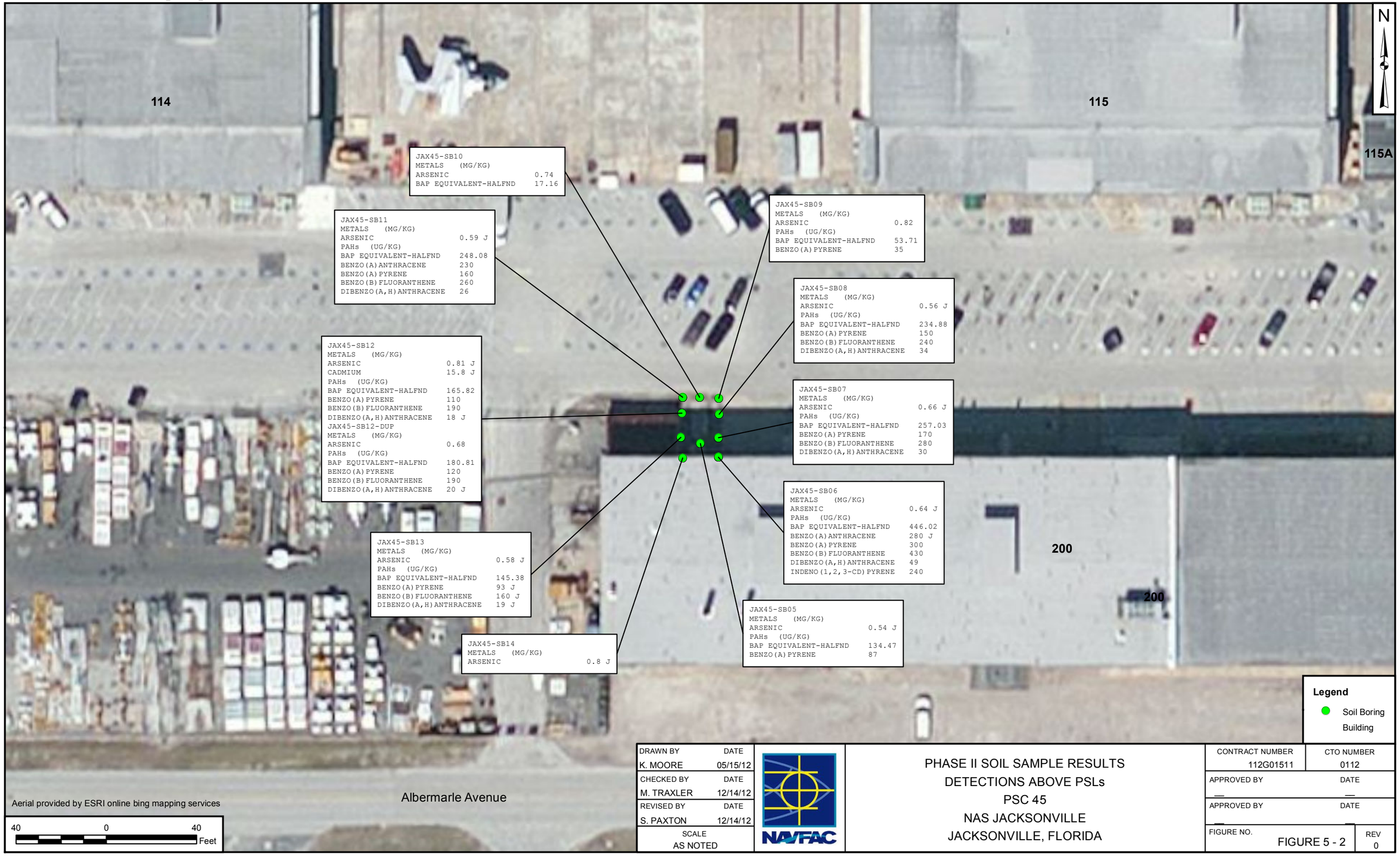
LOCATION	PSL	JAX45-SB05	JAX45-SB06	JAX45-SB07	JAX45-SB08	JAX45-SB09	JAX45-SB10	JAX45-SB11	JAX45-SB12			JAX45-SB13	JAX45-SB14
SAMPLE IDENTIFICATION		JAX-45-SB05-SB-06242011	JAX-45-SB06-SB-06242011	JAX-45-SB07-SB-06242011	JAX-45-SB08-SB-06242011	JAX-45-SB09-SB-06242011	JAX-45-SB10-SB-06242011	JAX-45-SB11-SB-06242011	JAX-45-SB12-SB-06242011	JAX-45-SB12-SB-06242011-AVG	JAX-45-SB12-SB-06242011-D	JAX-45-SB13-SB-06242011	JAX-45-SB14-SB-06242011
SAMPLE DATE		20110623	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624
TOP DEPTH		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
METALS (mg/kg)													
ALUMINUM	7700	1980 J	2730 J	2430 J	209 J	3770 J	2060 J	2690 J	1730 J	1209.5	689 J	4000 J	4070 J
ANTIMONY	3.1	0.08 U	0.06 U	0.06 U	0.06 U	0.07 U	0.06 U	0.15 J	0.08 J	0.055	0.06 U	0.08 J	0.07 U
ARSENIC	0.39	**0.54 J**	**0.64 J**	**0.66 J**	**0.56 J**	**0.82**	**0.74**	**0.59 J**	**0.81 J**	**0.745**	**0.68**	**0.58 J**	**0.8 J**
BARIUM	1500	7.4 J	6.3 J	8.5 J	4.8 J	7.9 J	4.8 J	10.4 J	19.2 J	13.25	7.3 J	11 J	7.2 J
BERYLLIUM	16	0.05 J	0.06 J	0.09 J	0.02 U	0.07 J	0.03 J	0.12 J	0.15 J	0.08	0.02 U	0.09 J	0.06 J
CADMIUM	7	0.7 J	0.37 J	0.78 J	0.05 J	0.06 J	0.05 J	0.26 J	**15.8 J**	**9.7**	3.6 J	1.2 J	0.14 J
CALCIUM	NC	3420	1630	11400	766	16000	5870	61000	8340	6680	5020	6550	987
CHROMIUM	0.29	**4.7 J**	**3.4 J**	**6.7 J**	0.64 U	**4.1 J**	**2.6 J**	**5.5 J**	**28.9 J**	**15.75**	**2.6 J**	**6.7 J**	**4.5 J**
COBALT	2.3	0.21 J	0.13 J	0.29 J	0.03 U	0.18 J	0.08 J	0.35 J	1.3 J	0.7	0.1 J	0.39 J	0.17 J
COPPER	310	4.1	3.2	7.2	1.8 J	4.1	1.8 J	3.9	24.4	25.1	25.8	5.2	4.2
IRON	5500	615 J	1040 J	1470 J	193 J	1010 J	396 J	710 J	2320 J	1580	840 J	1010 J	1860 J
LEAD	400	22.5 J	14 J	47.9 J	4.9 J	5.4 J	3.2 J	9.3 J	136 J	76.95	17.9 J	30.4 J	9.6 J
MAGNESIUM	NC	117 J	136 J	200 J	26 J	274 J	128 J	743 J	451 J	261.55	72.1 J	232 J	160 J
MANGANESE	180	9.8	14.2	25.6	6.7	10.7	6.8	23	70.7	62.15	53.6	17.9	13.8
MERCURY	0.78	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.07	0.055	0.04	0.03 U	0.04 U
NICKEL	150	1.3 J	1.1 J	1.5 J	0.12 U	1 J	0.74 J	1.7 J	3.9 J	2.36	0.82 J	1.9 J	1.2 J
SILVER	39	0.03 U	0.02 U	0.03 J	0.02 U	0.03 U	0.02 U	0.03 U	0.08 J	0.045	0.02 U	0.03 J	0.07 J
VANADIUM	39	2.1 J	3	4	0.81 J	4.4	2.1 J	7	10	7	4	3.9	5.3
ZINC	2300	24.8 J	24.7 J	31.4 J	1.7 J	14.9 J	6.6 J	21.2 J	623 J	368.5	114 J	42.3 J	12.9 J
MISCELLANEOUS PARAMETERS (%)													
TOTAL SOLIDS	NC	72	86	82	95	86	82	83	93	93	93	80	86
PETROLEUM HYDROCARBONS (mg/kg)													
TPH (C08-C40)	340	250	210	140	100	28	29	72	230	210	190	200	30
POLYCYCLIC AROMATIC HYDROCARBONS (µg/kg)													
1-METHYLNAPHTHALENE	3100	6.7 J	8.9 J	10 J	1.8 U	1.9 U	1.9 U	7.2 J	5.9 J	4.75	3.6 J	3.2 J	2 U
2-METHYLNAPHTHALENE	8500	7.8 J	5.4 J	13 J	2.3 U	2.5 U	2.5 U	3.5 J	5.7 J	4.15	2.6 J	3 J	2.5 U
ACENAPHTHENE	2100	17 J	68	25	4 J	1.7 U	1.7 U	37	18 J	15.5	13 J	8.7 J	1.7 U
ACENAPHTHYLENE	27000	2.9 J	1.4 U	6.3 J	11 J	1.4 U	1.3 U	1.4 U	2.3 J	2.55	2.8 J	3.8 J	1.4 U
ANTHRACENE	2500000	12 J	57	12 J	6.6 J	2.8 J	1.3 U	74	13 J	15.5	18 J	7.9 J	1.4 U
BAP EQUIVALENT-HALFND	15	**134.47**	**446.02**	**257.03**	**234.88**	**53.712**	**17.1561**	**248.08**	**165.82**	**173.315**	**180.81**	**145.379**	7.6714
BENZO(A)ANTHRACENE	150	68	**280 J**	130	110 J	32	4 J	**230**	82	96	110	72 J	2.5 J
BENZO(A)PYRENE	15	**87**	**300**	**170**	**150**	**35**	11 J	**160**	**110**	**115**	**120**	**93 J**	5 J
BENZO(B)FLUORANTHENE	150	150	**430**	**280**	**240**	52	15 J	**260**	**190**	**190**	**190**	**160 J**	6.9 J
BENZO(G,H,I)PERYLENE	1700000	69	130	100	99	18 J	9.4 J	67	67	68.5	70	78 J	5.4 J
BENZO(K)FLUORANTHENE	1500	57	170	86	76	18 J	5 J	88	60	64.5	69	49	3.6 U
CHRYSENE	15000	100	320	170	120	32	6.1 J	200	120	120	120	89 J	3.4 J
DIBENZO(A,H)ANTHRACENE	15	15 J	**49**	**30**	**34**	6.9 J	2.8 J	**26**	**18 J**	**19**	**20 J**	**19 J**	2.1 U
FLUORANTHENE	1200000	200	640	340	150	58	7.7 J	660	250	275	300	150 J	5.5 J
FLUORENE	160000	10 J	46	16 J	3.3 U	3.6 U	3.6 U	27	14 J	11.35	8.7 J	6 J	3.7 U

TABLE 5-2

SUMMARY OF DETECTIONS FROM PHASE II SOIL ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA
Page 2 of 2

LOCATION	PSL	JAX45-SB05	JAX45-SB06	JAX45-SB07	JAX45-SB08	JAX45-SB09	JAX45-SB10	JAX45-SB11	JAX45-SB12			JAX45-SB13	JAX45-SB14
SAMPLE IDENTIFICATION		JAX-45-SB05-SB-06242011	JAX-45-SB06-SB-06242011	JAX-45-SB07-SB-06242011	JAX-45-SB08-SB-06242011	JAX-45-SB09-SB-06242011	JAX-45-SB10-SB-06242011	JAX-45-SB11-SB-06242011	JAX-45-SB12-SB-06242011	JAX-45-SB12-SB-06242011-AVG	JAX-45-SB12-SB-06242011-D	JAX-45-SB13-SB-06242011	JAX-45-SB14-SB-06242011
SAMPLE DATE		20110623	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624	20110624
TOP DEPTH		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
POLYCYCLIC AROMATIC HYDROCARBONS (µg/kg)													
INDENO(1,2,3-CD)PYRENE	150	100 J	**240**	150 J	150 J	32 J	14 J	120 J	99 J	99.5	100 J	96 J	6.6 J
NAPHTHALENE	1200	15 J	6.3 J	33	2.7 U	2.9 U	2.9 U	3 U	13 J	8	3 J	4 J	3 U
PHENANTHRENE	250000	150	360 J	200	40 J	9.9 J	2.2 J	360 J	160	145	130	76 J	2.2 J
PYRENE	880000	140	390 J	220	110 J	34	6 J	350 J	160	180	200	120 J	3.9 J
SEMIVOLATILES (µg/kg)													
BIS(2-ETHYLHEXYL)PHTHALATE	35000	130 U	110 U	120 U	100 U	110 U	110 U	220 J	100 U	140	230 J	120 U	110 U
VOLATILES (µg/kg)													
TETRACHLOROETHENE	30	1.4 U	1.2 U	1.3 U	1.2 U	1.3 U	1.4 U	7.2	2.6 J	2.35	2.1 J	3.5 J	1.2 U

Notes:
mg/kg = milligram per kilogram
µg/kg = microgram per kilogram
nc = no criteria
J = estimated value
U = undetected value
Shaded cells indicate an exceedance of the PSL



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M. TRAXLER	12/14/12
REVISED BY	DATE
S. PAXTON	12/14/12
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PHASE II SOIL SAMPLE RESULTS
DETECTIONS ABOVE PSLs
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER 112G01511	CTO NUMBER 0112
APPROVED BY —	DATE —
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FIGURE NO. FIGURE 5 - 2	REV 0

Petroleum Hydrocarbons

TPH (C_{08}-C_{40}) was not detected in any soil sample at a concentration that was in excess of the PSL (see Table 5-2).

PAHs

One or more of the individual PAHs benzo(a)anthracene, BAP, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene exceeded applicable PSLs at 8 of the 10 sample locations (see Table 5-2 and Figure 5-2). The calculated BAP equivalent, which represents the risk-based sum of the seven carcinogenic PAHs (cPAHs), was exceeded at 9 of the 10 soil sample locations.

SVOCs

No SVOCs were detected in any of the soil samples at a concentration that exceeded applicable PSLs (see Table 5-2).

VOCs

No VOCs were detected in any of the soil samples at a concentration that exceeded applicable PSLs (see Table 5-2).

5.3.3 Phase II – Groundwater Sample Results

The Phase II groundwater sampling was performed from June 20 through June 23, 2011 (see Figure 4-3). A summary of detections is presented in Table 5-3 and a tag map showing detections above PSLs is presented on Figure 5-3. A summary of the complete analysis is presented in Table E-3 of Appendix E. The frequency of VOC Detections by depth is provided on Table 5-4.

TABLE 5-3

SUMMARY OF DETECTIONS FROM PHASE II GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	PSL	JAX45-DPT12				JAX45-DPT13				JAX45-DPT14	
SAMPLE IDENTIFICATION		JAX-45-DPT12-12-06202011	JAX-45-DPT12-20-06202011	JAX-45-DPT12-40-06202011	JAX-45-DPT12-60-06202011	JAX-45-DPT13-12-06202011	JAX-45-DPT13-20-06202011	JAX-45-DPT13-40-06202011	JAX-45-DPT13-60-06202011	JAX-45-DPT14-12-06202011	JAX-45-DPT14-12-06202011-AVG
SAMPLE DATE		20110620	20110620	20110620	20110620	20110620	20110620	20110620	20110620	20110620	20110620
DEPTH		12-16	20-24	40-44	60-64	12-16	20-24	40-44	60-64	12-16	12-16
VOLATILES (µg/L)											
1,1,2-TRICHLOROETHANE	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	**7.9**	**4.2**	**6.8**	0.21 U	**4.2**	2	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	**56**	**40**	**67**	0.35 U	6.5	3.2	0.44 J	0.35 U	0.35 U	0.35 U
1,2-DICHLOROBENZENE	280	0.15 U	0.15 U	0.15 U	0.15 U	0.36 J	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	**47**	**37**	**65**	0.2 U	**3.2**	**1.6**	0.2 U	0.2 U	0.2 U	0.2 U
2-BUTANONE	4200	1.3 U	1.3 U	1.3 U	1.3 U	1.3 UJ	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	3.3 J	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ
BENZENE	0.39	0.34 J	**0.76 J**	0.36 J	0.26 U	**0.41 J**	0.32 J	0.26 U	0.26 U	0.26 U	0.26 U
CARBON DISULFIDE	700	0.38 J	0.25 U	0.35 J	0.25 U	0.56 J	0.46 J	2.8	0.42 J	0.25 U	0.25 U
CARBON TETRACHLORIDE	0.39	0.22 U	0.22 U	0.22 U	0.22 U	**0.95 J**	**54**	**860**	0.22 U	0.22 U	0.22 U
CHLOROFORM	0.19	0.32 U	0.32 U	0.32 U	0.32 U	**5.8**	**500**	**900**	**2.8**	0.32 U	0.32 U
CHLOROMETHANE	2.7	0.36 U	0.36 U	0.36 U	0.36 U	0.62 J	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
CIS-1,2-DICHLOROETHENE	2.8	**150**	**46**	**34**	0.21 U	**43**	**21**	0.21 U	0.36 J	0.53 J	0.53 J
METHYL CYCLOHEXANE	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 J	0.3 U	0.3 U	0.3 U
METHYLENE CHLORIDE	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.7 J	**6.1**	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	**5.4**	**13**	0.4 U	0.4 U	0.4 U
TOLUENE	40	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	1.3	4.6	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	6.2	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	7.7	0.64 J	0.25 U	0.25 U	4.2	1.4	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROETHENE	0.26	**4.7**	**21**	**46**	0.28 U	**24**	**11**	**0.4 J**	0.28 U	0.28 U	0.28 U
VINYL CHLORIDE	0.015	**5.5**	**1.1 J**	**0.54 J**	0.25 U	**2.9**	**1.2 J**	0.25 U	0.25 U	0.25 U	0.25 U

TABLE 5-3

SUMMARY OF DETECTIONS FROM PHASE II GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION		JAX45-DPT14				JAX45-DPT15				JAX45-DPT16	
SAMPLE IDENTIFICATION	PSL	JAX-45-DPT14-12-06202011-D	JAX-45-DPT14-20-06202011	JAX-45-DPT14-40-06202011	JAX-45-DPT14-60-06202011	JAX-45-DPT15-12-06202111	JAX-45-DPT15-20-06202111	JAX-45-DPT15-40-06202111	JAX-45-DPT15-60-06202111	JAX-45-DPT16-12-06202111	JAX-45-DPT16-20-06202111
SAMPLE DATE		20110620	20110620	20110620	20110620	20110621	20110621	20110621	20110621	20110621	20110621
DEPTH		12-16	20-24	40-44	60-64	12-16	20-24	40-44	60-64	12-16	20-24
VOLATILES (µg/L)											
1,1,2-TRICHLOROETHANE	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-DICHLOROBENZENE	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-BUTANONE	4200	1.3 U	1.3 U	1.3 U	1.3 U	1.3 UJ	1.3 UJ	6.6 J	1.3 UJ	1.3 UJ	1.3 UJ
ACETONE	6300	2.2 UJ	2.8 J	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	3.7 J	2.2 UJ	2.7 J	2.2 UJ
BENZENE	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CARBON DISULFIDE	700	0.31 J	0.41 J	0.25 U	0.25 U	0.25 U	0.65 J	0.25 U	0.25 U	0.25 U	0.54 J
CARBON TETRACHLORIDE	0.39	0.22 U	0.22 U	0.22 U	0.31 J	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROFORM	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	0.52 J	0.44 J	1.1 J	1.1 J	0.36 U	0.46 J	0.36 U	0.43 J	0.4 J	0.36 U
CIS-1,2-DICHLOROETHENE	2.8	0.55 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
METHYLENE CHLORIDE	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
TOLUENE	40	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROETHENE	0.26	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	**0.33 J**
VINYL CHLORIDE	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE 5-3

SUMMARY OF DETECTIONS FROM PHASE II GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	PSL	JAX45-DPT16		JAX45-DPT17				JAX45-DPT18			
SAMPLE IDENTIFICATION		JAX-45-DPT16-40-06202111	JAX-45-DPT16-60-06202111	JAX-45-DPT17-12-06202111	JAX-45-DPT17-20-06202111	JAX-45-DPT17-40-06202111	JAX-45-DPT17-60-06202111	JAX-45-DPT18-12-06202111	JAX-45-DPT18-20-06202111	JAX-45-DPT18-40-06202111	JAX-45-DPT18-40-06202111-AVG
SAMPLE DATE		20110621	20110621	20110621	20110621	20110621	20110621	20110621	20110621	20110621	20110621
DEPTH		40-44	60-64	12-16	20-24	40-44	60-64	12-16	20-24	40-44	40-44
VOLATILES (µg/L)											
1,1,2-TRICHLOROETHANE	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	0.35 U	0.35 U	0.35 U	3	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-DICHLOROBENZENE	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-BUTANONE	4200	6.5 J	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ
ACETONE	6300	3.3 J	2.2 UJ	2.2 UJ	2.2 UJ	2.8 J	2.2 UJ	4.2 J	3.2 J	3 J	3 J
BENZENE	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CARBON DISULFIDE	700	0.43 J	0.35 J	0.78 J	0.44 J	0.25 U	0.42 J	1.9	0.32 J	0.34 J	0.34 J
CARBON TETRACHLORIDE	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROFORM	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	0.36 U	0.36 U	0.36 U	0.36 U	1.1 J	0.6 J	0.36 U	0.48 J	0.36 U	0.36 U
CIS-1,2-DICHLOROETHENE	2.8	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.24 J	0.21 U	0.21 U
METHYL CYCLOHEXANE	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
METHYLENE CHLORIDE	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
TOLUENE	40	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROETHENE	0.26	0.28 U	0.28 U	**0.71 J**	**8**	0.28 U	0.28 U	0.28 U	**1.7**	**0.42 J**	**0.42 J**
VINYL CHLORIDE	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE 5-3

SUMMARY OF DETECTIONS FROM PHASE II GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	PSL	JAX45-DPT18		JAX45-DPT19						JAX45-DPT20	
SAMPLE IDENTIFICATION		JAX-45-DPT18-40-06202111-D	JAX-45-DPT18-60-06202111	JAX-45-DPT19-12-06222011	JAX-45-DPT19-20-06222011	JAX-45-DPT19-40-06222011	JAX-45-DPT19-40-06222011-AVG	JAX-45-DPT19-40-06222011-D	JAX-45-DPT19-60-06222011	JAX-45-DPT20-12-06222011	JAX-45-DPT20-20-06222011
SAMPLE DATE		20110621	20110621	20110622	20110622	20110622	20110622	20110622	20110622	20110622	20110622
DEPTH		40-44	60-64	12-16	20-24	40-44	40-44	40-44	60-64	12-16	20-24
VOLATILES (µg/L)											
1,1,2-TRICHLOROETHANE	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 U	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 U
1,1-DICHLOROETHANE	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-DICHLOROBENZENE	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-BUTANONE	4200	1.3 UJ	1.3 UJ	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	2.8 J	2.2 UJ	3.3 U	3.1 U	3.2 U	3.2 U	3.1 J	3.1 U	4.1 U	5.7 U
BENZENE	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CARBON DISULFIDE	700	0.25 U	0.25 U	0.33 J	0.6 J	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.4 J
CARBON TETRACHLORIDE	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROFORM	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	0.36 U	0.42 J	0.36 U	0.77 J	0.36 U	0.36 U	0.36 U	0.36 U	0.65 J	0.36 U
CIS-1,2-DICHLOROETHENE	2.8	0.25 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	NC	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 U
METHYLENE CHLORIDE	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
TOLUENE	40	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROETHENE	0.26	**0.87 J**	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
VINYL CHLORIDE	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE 5-3

SUMMARY OF DETECTIONS FROM PHASE II GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

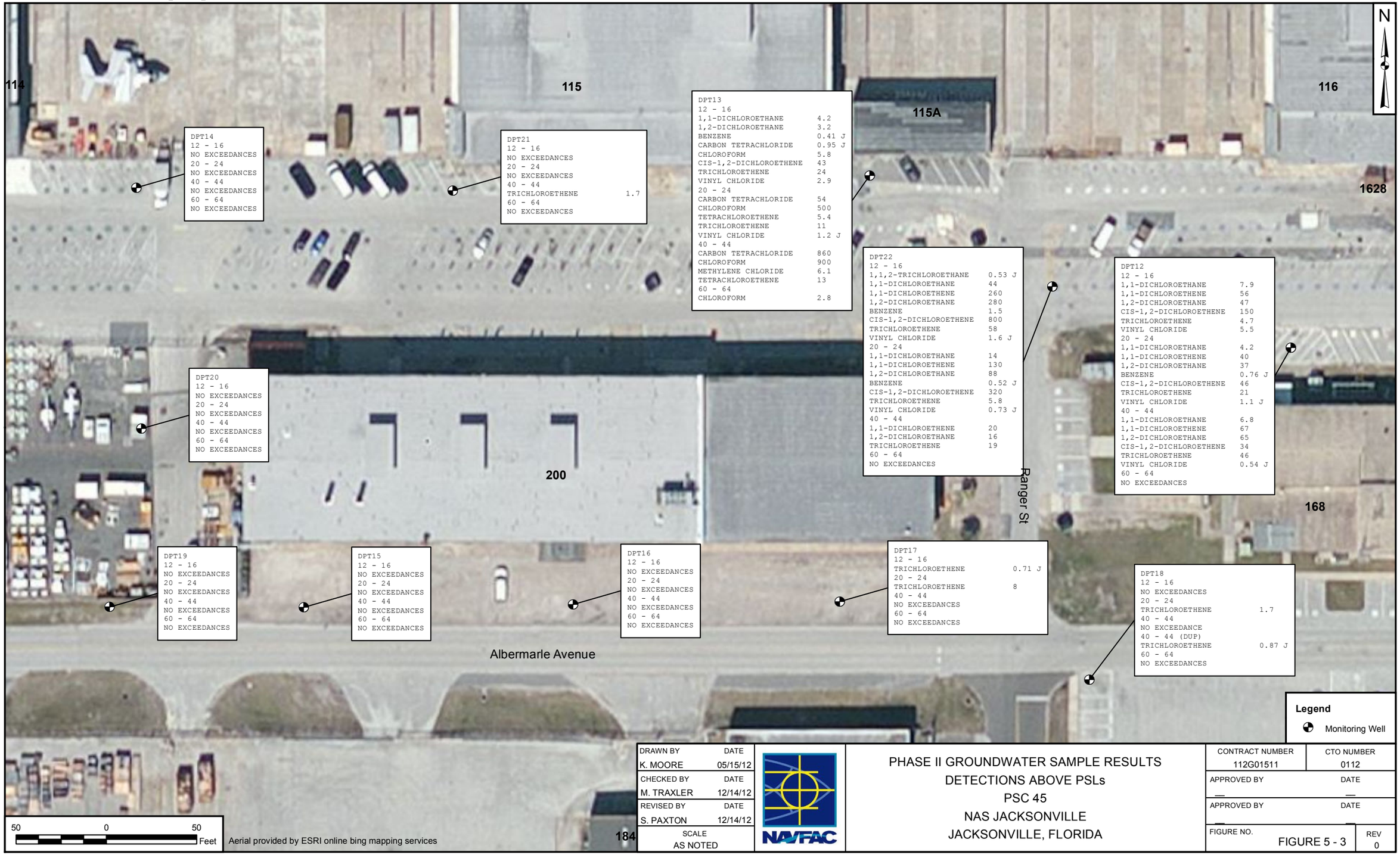
LOCATION		JAX45-DPT20				JAX45-DPT21			
SAMPLE IDENTIFICATION	PSL	JAX-45-DPT20-40-06222011	JAX-45-DPT20-40-06222011-AVG	JAX-45-DPT20-40-06222011-D	JAX-45-DPT20-60-06222011	JAX-45-DPT21-12-06222011	JAX-45-DPT21-20-06222011	JAX-45-DPT21-40-06222011	JAX-45-DPT21-60-06222011
SAMPLE DATE		20110622	20110622	20110622	20110622	20110622	20110622	20110622	20110622
DEPTH		40-44	40-44	40-44	60-64	12-16	20-24	40-44	60-64
VOLATILES (µg/L)									
1,1,2-TRICHLOROETHANE	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 UJ	0.31 U	0.31 UJ
1,1-DICHLOROETHANE	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-DICHLOROBENZENE	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-BUTANONE	4200	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	4.4 U	4.4 U	4.4 U	2.2 U	3.5 U	2.6 U	4.8 U	2.9 U
BENZENE	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CARBON DISULFIDE	700	0.42 J	0.42 J	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ
CARBON TETRACHLORIDE	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROFORM	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.5 J
CIS-1,2-DICHLOROETHENE	2.8	0.21 U	0.21 U	0.21 U	0.21 U	0.96 J	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 UJ	0.3 U	0.3 UJ
METHYLENE CHLORIDE	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
TOLUENE	40	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROETHENE	0.26	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	**1.7**	0.28 U
VINYL CHLORIDE	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

TABLE 5-3

SUMMARY OF DETECTIONS FROM PHASE II GROUNDWATER ANALYTICAL RESULTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	PSL	JAX45-DPT22			
SAMPLE IDENTIFICATION		JAX-45-DPT22-12-06232011	JAX-45-DPT22-20-06232011	JAX-45-DPT22-40-06232011	JAX-45-DPT22-60-06232011
SAMPLE DATE		20110623	20110623	20110623	20110623
DEPTH		12-16	20-24	40-44	60-64
VOLATILES (µg/L)					
1,1,2-TRICHLOROETHANE	0.24	**0.53 J**	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	110	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	**44**	**14**	2.1	0.21 U
1,1-DICHLOROETHENE	7	**260**	**130**	**20**	0.35 U
1,2-DICHLOROBENZENE	280	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	**280**	**88**	**16**	0.2 U
2-BUTANONE	4200	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	2.2 UJ	4.5 U	2.2 UJ	2.2 UJ
BENZENE	0.39	**1.5**	**0.52 J**	0.26 U	0.26 U
CARBON DISULFIDE	700	0.25 U	0.63 J	0.25 U	0.25 U
CARBON TETRACHLORIDE	0.39	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROFORM	0.19	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	0.36 U	0.36 U	0.44 J	0.36 U
CIS-1,2-DICHLOROETHENE	2.8	**800**	**320**	**11**	0.21 U
METHYL CYCLOHEXANE	NC	0.3 U	0.3 U	0.3 U	0.3 U
METHYLENE CHLORIDE	4.7	1.1 U	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	0.072	0.4 U	0.4 U	0.4 U	0.4 U
TOLUENE	40	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	3.6	10	0.6 J	0.25 U
TRICHLOROETHENE	0.26	**58**	**5.8**	**19**	0.28 U
VINYL CHLORIDE	0.015	**1.6 J**	**0.73 J**	0.25 U	0.25 U

Notes:
NC = no criteria
J = estimated value
U = undetected value
Shaded cells indicate an exceedance of the PSL.



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S. PAXTON	12/14/12
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PHASE II GROUNDWATER SAMPLE RESULTS
DETECTIONS ABOVE PSLs
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
112G01511	0112
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FIGURE NO.	REV
FIGURE 5 - 3	0

TABLE 5-4

**FREQUENCY OF PHASE II VOC DETECTIONS EXCEEDING THE PSLs
BY SAMPLE DEPTH INTERVAL
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA**

Analyte	Sample Depth Interval (in feet bgs)				Frequency of Detections Exceeding the PSL
	12 to 16	20 to 24	40 to 44	60 to 64	
1,1,2-TRICHLOROETHANE	1	0	0	0	1
1,1-DICHLOROETHANE	3	2	1	0	6
1,1-DICHLOROETHENE	2	2	2	0	6
1,2-DICHLOROETHANE	3	2	2	0	7
BENZENE	2	2	0	0	4
CARBON TETRACHLORIDE	1	1	1	0	3
CHLOROFORM	1	1	1	1	4
CIS-1,2-DICHLOROETHENE	3	2	1	0	6
METHYLENE CHLORIDE	0	0	1	0	1
TETRACHLOROETHENE	0	1	1	0	2
TRICHLOROETHENE	4	5	4	0	13
VINYL CHLORIDE	3	3	1	0	7
Frequency of any analyte exceeding PSL	23	21	15	1	60
Number of analytes exceeding PSL	10	10	10	1	

Interpretation of Groundwater Data

In general, VOCs are the dominant analytes detected in excess of the applicable PSLs in groundwater at PSC 45 (see Figures 5-1 and 5-3). The impact to groundwater is primarily limited to the upper and intermediate layer of the surficial aquifer beneath PSC 45. Only one analyte (chloroform at 2.8 µg/L) exceeded the applicable PSL in one location (JAX-45-DPT13) from a sample collected from the 60 to 64 feet bgs sample depth interval (see Figure 5-3).

A review of Figure 5-3 shows that some target analytes for the Phase II groundwater sampling event (i.e., VOCs) were detected above the applicable PSLs in 6 of the 11 sample locations. Three of these locations (DPT 21, DPT 17, and 18) were similar in nature in that only trichloroethene was detected at low levels close the PSL value. The three other locations (DPT 13, DPT 22, and DPT 12) were distinctively different with similar grouping of multiple constituents exceeding the PSLs.

Based on the Phase II sampling events, the horizontal distribution of contaminants appears to be defined in all intervals to the northwest, west, and south of PSC 45. However, the groundwater plume is not defined to the north and northeast.

A review of the Phase II data from the areas to the north and northeast (DPT 14, DPT 21, DPT 13, DPT 22, and DPT 12) shows that those results are distinctly different from the chemical profiles of other sampling locations at PSC 45. For example carbon tetrachloride, chloroform, methylene chloride and trans-1,2-dichloroethene are not detected in the any of the sampling locations south of DPT 12. These results suggests that a secondary source of contamination originating somewhere immediately north of PSC 45 is likely to be responsible for impacts to groundwater detected during this investigation of PSC 45. Based on review of this information, the Partnering Team determined that additional investigation into this possible second source area should be conducted as a separate site and that further investigation of the area to the north and northeast of PSC 45 is not warranted as part of the PSC 45 RI.

A review of the data from other areas of PSC 45 shows that the chemical profile of samples from the two shallow wells was similar to each other, as was the chemical profile of the samples from the two deep wells (see Figure 5-1). Organic compounds were detected in excess of the applicable PSLs in both the shallow site well (JAX45-B200-MW01S) and the shallow downgradient well (JAX45-B200-MW02S). No analytes were detected in excess of the applicable PSL in the sample collected from the deep site well (JAX45-B200-MW01D), while one organic compound (BAP) was detected in excess of the applicable PSLs in the sample collected from the deep downgradient well (JAX45-B200-MW02D).

The horizontal extent of contamination is influenced by the differences in two key hydrogeological factors. First, there are slight differences in groundwater flow direction that is exhibited in the upper and intermediate layers of the surficial aquifer (see Figures 2-7 and 2-8). In the area of PSC 45, groundwater in the upper layer initially flows in a southeastern direction and then turns more sharply to the south. This groundwater flow pattern appears to be intercepted by nearby stormwater drains (see Figure 2-7 and Appendix B). Groundwater in the intermediate layer flows in an east-to-southeast direction.

Second, a key hydrogeological factor influencing the horizontal extent of contamination is the difference in groundwater velocity. The groundwater velocity in the upper layer of the surficial aquifer averaged about 2 feet per year. Groundwater flow velocity in the intermediate layer associated with PSC 45 is about 35 feet per year. The groundwater flow velocity in the intermediate layer is higher than in the upper layer because the horizontal hydraulic gradients are higher in intermediate layer than they are in the upper layer (USGS, 1998).

The areal extent of contamination is influenced by how groundwater flows in the upper layer and the intermediate layer of the surficial aquifer (see Figures 2-7, 2-8, and 5-4). Contaminated groundwater in the upper layer of the surficial aquifer appears to be discharging into a stormwater drainage system that

JAX M:\GIS\PROJECTS\NAS JAX\MXD\PSC45_FIGURE_5-4.MXD 04/23/13

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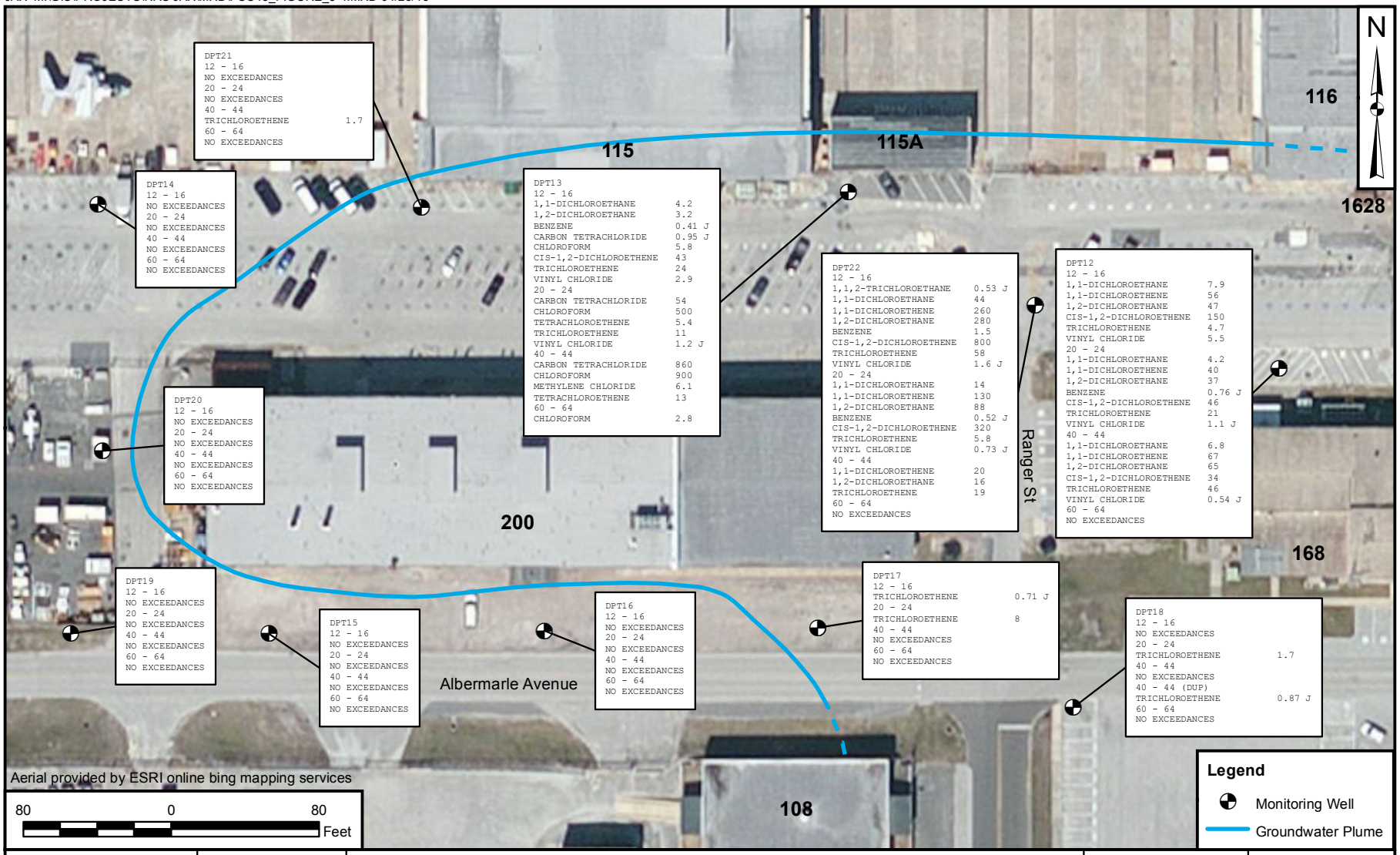

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GROUNDWATER PLUME
BASED ON FIGURES 2-7, 2-8, 5-2, AND 5-8
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
112G01511	0112
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FIGURE 5 - 4	0

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runs west to east along Albermarle Avenue (see Figure 2-7), prior to joining with storm sewers to the south that enter into OU 3. OU 3 is being addressed under a separate effort. Part of that evaluation includes water entering into storm sewers down gradient of PSC 45. As a result, any potential impact to receptors resulting from contaminants entering the storm sewer at PSC 45 will be addressed as part of this separate effort. Considerable investigation and monitoring results of the storm sewer and outfalls is included in the RI Addendum currently being prepared for OU 3.

Contaminated groundwater in the intermediate layer of the surficial aquifer appears to be following the flowpaths shown on Figure 2-8 that present an eastern-southeastern vector with groundwater associated with PSC 45 ultimately discharging into the St. Johns River. The USGS estimates groundwater flow velocity in the intermediate layer to be approximately about 35 feet per year (USGS, 1998). It would take approximately 80 years for groundwater in the intermediate layer under PSC 45 to discharge into the St. Johns River as the site is approximately 2,800 feet from the St. Johns River (2,800 feet divided by 35 feet per year equals 80 years).

6.0 CHEMICAL FATE AND TRANSPORT

Knowledge of a contaminant's potential to migrate and persist in an environmental medium is important when evaluating the potential for a chemical to elicit an adverse human health or ecological effect. This section contains information on the chemical properties and degradation potential of site contaminants, environmental conditions of the site and hydrological considerations that have a possible impact on contaminant fate and transport. Section 6.1 contains a general discussion of the various chemical and physical properties of contaminants detected at PSC 45. These include the following groups of site contaminants: VOCs, including monocyclic aromatics and halogenated aliphatics; SVOCs, including PAHs, phthalate esters, and 1,1-biphenyl; and inorganics (metals).

In Section 5.0, a few chemicals were identified as exceeding risk-based screening levels (and established facility background levels for metals) in two different environmental media – soil and groundwater (see Tables 5-1, 5-2, and 5-3). Many of these chemicals were only detected in a few samples in one medium at concentrations exceeding criteria. In general, detections of target analytes above the corresponding PSL, thus being identified as a chemical of potential concern (COPC) were limited to some metals and some site-related PAHs and VOCs. The emphasis of this section is to describe the fate and transport of COPCs with an emphasis on those contaminants that are most important based on risk to human health and the environment. It is expected that minor site contaminants would exhibit the same fate and transport as the major site contaminants with similar chemical and physical characteristics.

6.1 CHEMICAL AND PHYSICAL PROPERTIES AFFECTING SITE CONTAMINANT MOBILITY

Table 6-1 presents the physical and chemical properties of organic site contaminants identified in Section 5.0. These properties can be used to estimate the environmental mobility and fate of site contaminants. The properties that are discussed include the following:

- Specific gravity
- Vapor pressure
- Water solubility
- Henry's Law Constant
- Octanol/water partition coefficient (K_{ow})
- Organic carbon partition coefficient (K_{oc})
- Soil-water distribution coefficient (K_d)
- Bioconcentration factor (BCF)
- Mobility index (MI)
- Inorganic site contaminants

TABLE 6-1

PHYSICAL AND CHEMICAL PROPERTIES OF ORGANIC SITE CONTAMINANTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Chemical	Specific Gravity[(1)] (@ 20/4°C)[(2)]	Vapor Pressure (mm Hg @ 20°C)[(1)]	Water Solubility (mg/L @ 20°C)[(1)]	Octanol/Water Partition Coefficient (unitless)[(1)]	Organic Carbon Partition Coefficient (unitless)[(1)]	K_d Distribution Coefficient (unitless)[(1)]	log K_{ow}[(1)]	Henry's Law Constant (atm-m^3/mole)[(1)]	Bioconcentration Factor (L/kg)[(1)]	Mobility Index log [(solubility *VP)/Koc]
VOCs - Monocyclic Aromatics										
1,4-Dichlorobenzene	1.2 (55°C)	1.7E+00	8.1E+01	3.60E+03	1.70E+03	57	3.4E+00	2.4E-03	1.8E+03	-1.09
Benzene	0.88	9.5E+01	1.8E+03	1.35E+02	6.50E+01	22	2.1E+00	5.6E-03	1.0E+04	3.42
Ethylbenzene	0.86 (25°C)	9.6E+00	1.7E+02	2.20E+03	1.10E+03	68	3.2E+00	7.9E-03	NA	0.17
Isopropylbenzene	0.90 (25°C)	4.5E+00	6.1E+01	NA	NA	110	3.7E+00	1.2E-02	NA	NA
Total Xylenes	0.86 (25°C)	8.0E+00	1.1E+02	NA	NA	58	3.2E+00	6.6E-03	NA	NA
VOCs - Halogenated Aliphatics										
1,1,2-Trichloroethane	1.4	2.3E+01	4.6E+03	1.17E+02	5.60E+01	9.2	1.9E+00	8.2E-04	NA	3.28
1,1-Dichloroethane	1.2	2.3E+02	5.0E+03	6.30E+01	3.00E+01	4.8	1.8E+00	5.6E-03	NA	4.58
1,1-Dichloroethene	1.2	6.0E+02	2.4E+03	1.35E+02	6.50E+01	4.8	2.1E+00	2.6E-02	NA	4.35
1,2-Dichloroethane	1.2 (25°C)	7.9E+01	8.6E+03	3.00E+01	1.40E+01	6	1.5E+00	1.2E-03	2.0E+00	4.69
Carbon tetrachloride	1.6	1.2E+02	7.9E+02	9.12E+02	4.39E+02	6.7	2.8E+00	2.8E-02	3.0E+02	2.33
Chloroform	1.5 (25°C)	2.0E+02	8.0E+03	NA	NA	4.8	2.0E+00	3.7E-03	6.9E+02	NA
cis-1,2-Dichloroethene	1.3	2.0E+02	6.4E+03	NA	NA	6	2.0E+00	4.1E-03	NA	NA
Methylene chloride	1.3 (25°C)	4.4E+02	1.3E+04	1.82E+01	8.80E+00	3.3	1.3E+00	3.3E-03	5.8E+02	5.81
Tetrachloroethene	1.6	1.9E+01	2.1E+02	7.59E+02	3.64E+02	14	3.4E+00	1.8E-02	4.0E+02	1.04
Trichloroethene	1.5	6.9E+01	1.3E+03	2.63E+02	1.26E+02	9.2	2.4E+00	9.9E-03	1.7E+01	2.85
Vinyl chloride	0.91	3.0E+03	8.8E+03	1.70E+01	8.20E+00	3.3	1.6E+00	2.8E-02	NA	6.51
PAHs										
1-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	1.0	5.5E-02	2.5E+01	NA	NA	380	3.9E+00	5.2E-04	2.4E+04	5.70
Benzo(a)anthracene	1.274	1.1E-07	9.4E-03	4.1E+05	2.0E+05	NA	5.7E+00	3.4E-06	1.0E+04	-14.29
Benzo(a)pyrene	1.351	5.0E-09	1.6E-03	1.15E+06	5.5E+06	NA	6.0E+00	1.1E-06	9.6E+05	-17.84
Benzo(a)pyrene Equivalents	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	5.0E-07	1.2E-03 (25°C)	1.15E+06	5.5E+05	NA	6.6E+00	1.2E-05	1.4E+05	-15.31
Benzo(g,h,i)perylene	NA	1.0E-10	2.6E-04	3.20E+06	1.6E+06	NA	6.6E+00	1.4E-07	2.8E+04	-19.79
Benzo(k)fluoranthene	NA	2.0E-09	8.0E-04	1.15E+06	5.5E+05	NA	6.1E+00	8.3E-07	2.0E+05	-17.54
Chrysene	1.274	6.2E-09	6.0E-03	4.1E+05	2.0E+05	NA	5.7E+00	9.5E-05	6.5E+02	-15.73
Dibenzo(a,h)anthracene	NA	1.0E-10	2.5E-03	6.9E+06	3.3E+06	NA	6.5E+00	1.5E-08	5.0E+04	-19.12
Indeno(1,2,3-cd)pyrene	NA	1.0E-10	2.2E-05	3.2E+06	1.6E+06	NA	6.6E+00	1.6E-06	NA	-20.86
Naphthalene	1.0	8.5E-02	3.1E+01	1.95E+03	9.40E+02	230	3.3E+00	4.4E-04	1.2E+03	-2.55
Phthalate Esters										
bis(2-Ethylhexyl) phthalate	0.98 (25°C)	6.8E-08	3.4E-01	4.1E+09	2.0E+09	NA	5.1E+00	1.0E-07	6.5E+03	-7.50
Miscellaneous SVOCs										
1,1-Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
NA = not available
atm-m3/mole = atmosphere cubic meter per mole
°C = degree Celsius
Koc = Organic carbon partition coefficient
VP = vapor pressure
L/kg = liters per kilogram
Kow = Octanol/water partition coefficient

1 Sources of information, in order of preference:
USEPA, 2012c. Superfund Chemical Data Matrix. Website: http://www.epa.gov/superfund/sites/npl/hrsres/tools/scdm.htm visited on December 14, 2012.
USEPA, 1992. Handbook for RCRA Groundwater Monitoring Constituents:Chemical and Physical Properties.
Mabey et al., 1982. Aquatic Fate Process Data for Organic Priority Pollutants.

2 (20/4°C) indicates that density of the chemical was measured at 20°C, whereas, density of water was measured at 4°C. Numbers in parentheses indicate that densities were measured at other given temperatures.

Literature values for water solubility, K_{ow}, K_{oc}, vapor pressure, Henry's Law constant, BCF, MI, and specific gravity are presented for each organic site contaminant, when available, in Table 6-1. Calculated values, which were obtained using approximation methods, are presented when literature values are not available and the values could be computed. A discussion of the environmental significance of each of these parameters follows.

6.1.1 Specific Gravity

Specific gravity is the ratio of the density of a given volume of pure chemical at a specified temperature (usually 20 degrees Celsius [°C]) to the density of the same volume of water at a given temperature (usually 4°C). Its primary use is to determine whether a chemical will have a tendency to float or sink in water if it is present as a pure chemical or at very high concentrations. Chemicals with a specific gravity greater than 1, including halogenated aliphatic compounds and PAHs, will tend to sink if present as a pure liquid. If a large enough spill of these compounds occurs, these chemicals may migrate as a bulk liquid and will mix with or sink into the aquifer. Chemicals with a specific gravity less than 1, including monocyclic aromatics, will tend to float. If a large enough spill of these compounds occurs, these chemicals will migrate through the soil as a bulk liquid, but instead of going into solution, the majority of the release may remain a discrete layer on the water table surface.

This physical characteristic becomes important only when the chemicals are at very high concentrations and are liquid when they are in pure phase. At PSC 45, no analytes were detected at sufficiently high concentrations to speculate that they may currently be present, or may have been present in the past, in soil or groundwater as dense non-aqueous phase liquids.

6.1.2 Vapor Pressure

Vapor pressure provides an indication of the rate at which a chemical volatilizes from both soil and water. It is of primary importance at environmental interfaces, such as surface soil/air and surface water/air. Volatilization from stream sediments could also be significant under low-flow conditions (e.g., during summer months and drought conditions) when sediments are exposed to the atmosphere in a dry creek bed. Volatilization is not as important when evaluating contaminated groundwater and subsurface soils that are not exposed to the atmosphere. Vapor pressures for VOCs (monocyclic aromatics and halogenated aliphatics) are generally many times greater than vapor pressures for SVOCs (PAHs and phthalate esters). Chemicals with greater vapor pressures are expected to enter the atmosphere much more readily than chemicals with lower vapor pressures. Volatilization is a significant loss process for VOCs in surface soil. Volatilization is not significant for most inorganics. Surface soils at PSC 45 do not contain significant concentrations of VOCs; therefore, volatilization from soil is not currently an important loss mechanism at this site.

6.1.3 Water Solubility

The rate at which a chemical is leached from soil by infiltrating precipitation is proportional to its water solubility. More soluble chemicals are more readily leached than less soluble chemicals. The water solubilities presented in Table 6-1 indicate that the VOC contaminants are usually several orders of magnitude more water soluble than some of the PAHs. Therefore, VOCs are the compounds most frequently detected in groundwater.

6.1.4 Henry's Law Constant

Both vapor pressure and water solubility are of use in determining volatilization rates from surface water bodies and groundwater. The ratio of these two parameters, the Henry's Law constant, is used to calculate equilibrium chemical concentrations in the vapor (air) phase versus the liquid (water) phase for the dilute solutions commonly encountered in environmental settings. In general, chemicals having a Henry's Law constant of less than 1×10^{-5} atmosphere cubic meter per mole (atm-m^3/mole), such as PCBs and PAHs, should volatilize very little and should be present only in minute amounts in the atmosphere or soil gas. For chemicals with a Henry's Law constant greater than 5×10^{-3} atm-m^3/mole, such as many VOCs, volatilization and diffusion in soil gas could be significant.

6.1.5 Octanol/Water Partition Coefficient

K_{ow} is a measure of the equilibrium partitioning of chemicals between octanol and water. A linear relationship between the K_{ow} and the uptake of chemicals by fatty tissues of animal and human receptors, or the BCF, has been established (Lyman et al., 1990). K_{ow} is also useful in characterizing the sorption of compounds by organic soils where experimental values are not available. Aromatic compounds, lacking functional groups that enhance water solubility, are several orders of magnitude more likely to partition to fatty tissues than the more soluble VOCs. K_{ow} values are also used to estimate BCFs in aquatic organisms.

6.1.6 Organic Carbon Partition Coefficient

K_{oc} indicates the tendency of a chemical to adhere to organic matter contained in soils. Many VOCs have relatively low K_{oc} values and tend to be fairly mobile in the environment. Chemicals with high K_{oc} values generally have low water solubilities and vice versa. This parameter may be used to infer the relative rates at which the more mobile chemicals (e.g., monocyclic aromatics and halogenated aliphatics) are transported in groundwater. Chemicals such as most PCBs and PAHs are relatively immobile in soil and are preferentially bound to the soil. These compounds are not subject to groundwater transport to the same extent as compounds with higher water solubilities. However, these immobile chemicals can be

transported by erosional processes when they occur in surface soils. Several factors affect the measured value of K_{oc}. Values of K_{oc} usually decrease with increasing temperature. The fine silt and clay fraction of soil and sediments may have a greater tendency to absorb chemicals because they often have a higher concentration of organic matter (hence, a higher number of adsorption sites per unit volume).

6.1.7 Soil-Water Distribution Coefficient

K_d is a measure of the equilibrium distribution of a chemical in soil/water systems. The K_d of organic chemicals is a function of both the K_{oc} and the fraction of organic carbon (f_{oc}) in the soil:

$$K_d = K_{oc} * f_{oc}$$

The degree to which organic chemicals sorb to soils is very important when assessing migration potential. If a chemical tends to sorb strongly to soil, there is much less probability that the chemical will reach groundwater and affect groundwater quality.

6.1.8 Bioconcentration Factor

BCF represents the ratio of aquatic animal tissue concentration to water concentration. The ratio is both contaminant and species specific. When site-specific values are not measured, literature values are used or the BCF is derived from the K_{ow}. Many of the pesticides and PAHs will bioconcentrate in tissue at levels three to five orders of magnitude greater than those concentrations found in water, but VOCs are not as readily bioconcentrated.

6.1.9 Mobility Index

The MI is a quantitative assessment of mobility that uses water solubility (S), vapor pressure (VP), and the K_{oc} (Laskowski, 1983). It is defined as

$$MI = \log [(S*VP)/K_{oc}]$$

A scale to evaluate MI, as presented by Ford and Gurba (Ford and Gurba, 1984), is as follows:

Relative MI	Mobility Description
> 5	extremely mobile
0 to 5	very mobile
-5 to 0	slightly mobile
-10 to -5	immobile
< -10	very immobile

Of the organic chemicals detected at PSC 45, VOCs generally have MIs greater than 5 and are considered extremely mobile. Lighter molecular weight PAHs, such as naphthalene, have MIs ranging from -5 to 0 and are considered slightly mobile. Heavier molecular weight PAHs (e.g., BAP) are classified as very immobile, having MIs less than -10. The MIs for organic contaminants detected at PSC 45 are presented in Table 6-1.

6.1.10 Inorganic Site Contaminants

Table 6-2 presents the physical and chemical properties of inorganics identified in Section 5.0. The solubility and mobility of inorganics are strongly influenced by their valence state(s) and mineral forms present in soils (e.g., silicates, hydroxides, oxides, carbonates, etc.). The solubility of a metal also depends on pH, redox potential (Eh), temperature, and other ionic species in solution (the Debye-Huckel theory). Nearly all metals are more soluble at lower water pH values (e.g., less than 5.0). Iron, manganese, and chromium are metals that have more than one valence state and are more soluble in the reduced valence states. As a result, these metals are more soluble under reducing conditions. The solubility products reported in the literature vary with the type of chemical complex formed, but for example, cadmium and copper complexes are generally more soluble than lead and nickel complexes.

The K_d for inorganic constituents is the ratio of the concentration adsorbed on soil surfaces to the concentration in water. K_ds for metals vary over several orders of magnitude because the K_d is dependent on the size and charge of the ion and the soil properties governing exchange sites on soil surfaces. Overall, chromium and arsenic have lower K_d values and hence have greater mobilities. Copper and lead generally have much higher K_d values and lesser mobilities.

6.2 CHEMICAL PERSISTENCE AND DEGRADATION PROCESSES

Degradation and other transformation processes that affect the site contaminants are discussed in this section, including hydrolysis, biodegradation, photolysis, and oxidation/reduction reactions.

TABLE 6-2

PHYSICAL AND CHEMICAL PROPERTIES OF INORGANIC SITE CONTAMINANTS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Chemical	Molecular Weight (g/mol)[1]	Specific Gravity (20/4 °C)[1]	Vapor Pressure (25 °C) (mm Hg)[1]	Solubility (25 °C) (mg/L)[1]	Henry's Law Constant (25 °C) (atm-m^3/mol)[3]	Soil-Water K_d (mL/gm)[3]	Log K_{ow} (unitless)[3]	Bioconcentration Factor (mL/gm)[3]
Aluminum	26.982 [2]	2.70 [2]	NA	insoluble	NA	9.9	NA	6600
Arsenic	74.9216	5.727 (14 °C)	1 (372 °C)	insoluble	0.77	29	0.68	350
Cadmium	112.41	8.642 [UT]	NA	insoluble	0.031	75	-0.07	50000
Chromium	51.996	7.20 (28 °C)	NA	insoluble	NA	19	0.23	190
Copper	63.546	8.92 [UT]	1 (1628 °C)	insoluble	0.025	430	-0.57	51000
Iron	55.845 [2]	7.874 [2]	NA	NA	0.025	25	-0.77	1200
Lead	207.2	11.2960 (16 °C)	1 (970 °C)	insoluble	0.025	900	0.73	5000
Manganese	54.938 [2]	7.21 [2]	NA	NA	NA	65	0.23	25000
Mercury	200.59	13.5939	100 (260 °C)	0.056	0.0086	52	0.62	70000
Zinc	65.38	7.14 [UT]	1 (487 °C)	insoluble	0.025	62	NA	17000

Notes:

1 USEPA, Handbook of RCRA Ground-Water Monitoring Constituents: Chemical and Physical Properties, September 1992, unless otherwise noted.

2 Data obtained from a wikipedia.org website search on December 14, 2012.

3 USEPA, Superfund Chemical Data Matrix. Website http://www.epa.gov/superfund/sites/npl/hrsres/tools/scdm.htm visited on December 14, 2012.

UT There is no reference temperature available.

NA Not available.

K_d - Soil-water distribution coefficient.

g/mol - grams per mole

°C - degrees Celsius

mm Hg - millimeters mercury

mg/L - milligrams per liter

atm-m^3/mol - atmosphere cubic meters per mole

mL/gm - milliliters per gram

The following general classes of compounds were detected at concentrations above the human health or ecological screening criteria in at least one soil and/or groundwater sample at PSC 45 (i.e., human health or ecological COPCs) and are discussed below:

- VOCs - Monocyclic aromatics (benzene, isopropylbenzene, and total xylenes)
- VOCs - Halogenated aliphatics (numerous target analytes)
- TPH
- PAHs (numerous target analytes)
- Phthalate esters (bis(2-ethylhexyl)phthalate)
- Miscellaneous SVOCs (1,1-biphenyl)
- Metals (numerous target analytes)

6.2.1 VOCs - Monocyclic Aromatics

Three monocyclic aromatics (benzene, isopropylbenzene, and total xylenes) were detected above screening criteria in groundwater at PSC 45. Some components of TPH are monocyclic aromatics and are included in this discussion. Several of these compounds have specific gravities less than that of water, including benzene. These compounds are typically found in fuels; if a large enough fuel spill occurs, these compounds may move through the soil column as a bulk liquid until they reach the water table. There, instead of going into solution, the majority of the release may remain as a discrete fuel layer on the water table surface, with some of the material going into solution at the water/fuel interface.

Monocyclic aromatic compounds such as toluene are not considered to be persistent in the environment, particularly in comparison with chemicals such as PCBs and pesticides. Monocyclic aromatics are subject to degradation via the action of both soil and aquatic microorganisms. The biodegradation of these compounds in the soil matrix is dependent on the abundance of microflora, macronutrient availability, soil reaction (pH), temperature, etc.

These compounds are amenable to microbial degradation, although macronutrient availability at the site is not known. In the event that these compounds discharge to surface water bodies, volatilization and biodegradation may occur relatively rapidly. Additional environmental degradation processes, such as hydrolysis and photolysis, are considered to be insignificant fate mechanisms for monocyclic aromatics in aquatic systems (USEPA, 1982). However, some monocyclic aromatics such as toluene have been shown to undergo clay-, mineral-, and soil-catalyzed oxidation (Dragun, 1988).

6.2.2 VOCs - Halogenated Aliphatics

Seven halogenated aliphatics (1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride) were detected in excess of screening criteria in groundwater at PSC 45. Photolysis and oxidation reactions are not considered to be significant degradation mechanisms for this class of compounds. Limited hydrolysis of saturated aliphatics (i.e., alkanes) may occur, but it does not appear to be a significant degradation mechanism for unsaturated species (i.e., alkenes) (Mabey et al., 1982).

6.2.3 Polycyclic Aromatic Hydrocarbons

Eight PAHs (1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and cPAHs benzo(a)anthracene, BAP, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene) plus BAP equivalents were detected in excess of screening criteria in soil and/or groundwater at PSC 45. Some components of TPH are PAHs and are included in this discussion. PAHs are generally regarded as very persistent in the environment. PAHs have very low solubilities, vapor pressures, and Henry's Law constants and high K_{ocs} and K_{ows}. The lower molecular weight PAHs (e.g., acenaphthene, fluorene, and naphthalene) are more environmentally mobile than the higher molecular weight PAHs (e.g., BAP, benzo(a)anthracene, and chrysene) and are more likely to leach to groundwater. The high molecular weight PAHs are less mobile and tend to adhere to soil particles. Therefore, PAHs in soil are much more likely to bind to soil and be transported via mass transport mechanisms than to go into solution. The lower molecular weight PAHs are much more water soluble than the heavier PAHs (by 2 to 5 orders of magnitude), and consequently would be expected to be detected in water more frequently and at higher concentrations.

PAHs in soil are much more likely to bind to soil and to be transported via erosion and surface water runoff than to be solubilized. PAHs are subject to slow degradation via aerobic bacterial metabolism but may be relatively persistent in the absence of microbial populations or macronutrients such as phosphorus and nitrogen. Bioconcentration of PAHs in aquatic organisms is much greater for higher molecular weight compounds than lower molecular weight compounds. PAHs can be bioaccumulated from water, sediments, or lower organisms in the food chain.

Landspreading applications have indicated that PAHs are highly amenable to microbial degradation in soil. The rate of degradation is influenced by temperature, pH, oxygen concentrations, initial chemical concentrations, and moisture. Photolysis, hydrolysis, and oxidation are not important fate processes for the degradation of PAHs in soil (Agency for Toxic Substances and Disease Registry [ATSDR], 1997).

The most important fates of PAHs in water are photo-oxidation, chemical oxidation, and biodegradation. PAHs do not contain functional groups that are susceptible to hydrolytic action, and hydrolysis is considered to be an insignificant degradation mechanism. The rate of photodegradation is influenced by water depth, turbidity, and temperature. BAP, chrysene, and pyrene are reported to be resistant to photodegradation. PAHs may also be metabolized by microbes under oxygenated conditions (ATSDR, 1989).

6.2.4 Phthalate Esters

One phthalate ester (bis(2-ethylhexyl)phthalate) was detected above leachability screening criteria in soil at PSC 45. Phthalate esters are considered to be relatively persistent chemicals in the environment. Although numerous studies have demonstrated that phthalate esters undergo biodegradation, it appears that this is a slow process in both soils and surface waters. Certain microorganisms have been shown to excrete products that increase the solubility of phthalate esters and enhance their biodegradation (Gibbons and Alexander, 1989).

Biodegradation of bis(2-ethylhexyl)phthalate and other phthalates in water is an important fate mechanism, with a half-life of 2 to 3 weeks reported for bis(2-ethylhexyl)phthalate (Howard, 1990). Bioaccumulation is also a significant fate process. Hydrolysis of phthalate esters is very slow, with calculated half-lives of 3 years (dimethlyphthalate) to 2,000 years (bis(2-ethylhexyl)phthalate) (USEPA, 1979). Similarly, photolysis and volatilization are considered to be insignificant degradation mechanisms (USEPA, 1979; Howard, 1989).

6.2.5 Miscellaneous SVOCs

One miscellaneous SVOC, 1,1-biphenyl, was detected above screening criteria in one monitoring well sample at PSC 45. 1,1-Biphenyl is an aromatic compound that occurs in nature in coal tar, crude oil, and natural gas. It is used as a preservative and is an intermediate for the production of a host of other organic compounds. Persistence and degradation in soil and groundwater is likely to be similar to PAHs, given the similar chemical structures and properties.

6.2.6 Inorganics (Metals)

Metals are highly persistent environmental contaminants. They do not biodegrade, photolyze, hydrolyze, etc. The major fate mechanisms for metals are adsorption to the soil matrix (as opposed to being part of the soil structure) and bioaccumulation.

The mobility of metals is influenced primarily by their physical and chemical properties in combination with the physical and chemical characteristics of the soil matrix. Factors that assist in predicting the mobility of inorganic species are soil/pore water pH, soil/pore water Eh, and cation exchange capacity. The mobility of metals generally increases with decreasing soil pH and cation exchange capacity.

6.3 CHEMICAL MIGRATION

This section presents a brief overview of contaminant fate and transport pathways for several major chemical classes detected at PSC 45.

6.3.1 VOCs

VOCs are typically considered to be fairly soluble with a low capacity for retention by soil organic carbon; therefore, these are the organic compounds most frequently detected in groundwater. These types of chemicals may migrate through the soil column after being released by a spill event or by subsurface waste burial as infiltrating precipitation solubilizes them. Some fraction of these chemicals is retained by the soil, but most will continue migrating downward to the water table. At that time, migration occurs primarily lateral with the hydraulic gradient. Again, some portion of the chemical may be retained by the saturated soil.

Based on the results of the soil and groundwater analyses, there was little to no VOC contamination in soil and localized VOC contamination in groundwater. The VOCs detected in environmental media at PSC 45 include monocyclic aromatics and halogenated aliphatics. As indicated in the discussion of the MI in Section 6.1.9, VOCs are generally more soluble in water than other chemicals and have a low capacity for retention by soil organic carbon. Therefore, VOCs are typically the most frequently detected organic chemicals in groundwater.

6.3.2 SVOCs

SVOCs, including PAHs, are generally considered to be fairly immobile chemicals in the environment. They are large molecules with high K_{oc}s and low solubilities when compared to the VOCs. These compounds, when found in the soil, generally do not migrate vertically to a great extent. Instead, they are more likely to adhere to soil particles and be removed from the site via surface runoff and erosional processes.

PAHs were detected in soil, and were also detected in groundwater samples at PSC 45, indicating that the PAHs are migrating vertically and downgradient. The presence of PAHs is likely as a result of cleaning activities at PSC 45 associated with oil and/or other petroleum products.

6.3.3 Inorganics (Metals)

Because metals are frequently incorporated into the soil matrix and remain bound to particulate matter, they also migrate from the source areas via bulk movement processes (erosion). There are some instances, however, where these metals are found at such concentrations or in such form as to be able to migrate to solution. It is possible that industrial activities could saturate all available exchange sites in soil hence, a metal may be mobilized. Finally, a metal solution may be utilized in some industrial applications. In these cases, it is possible for metals to migrate vertically through the soil column and reach the groundwater. Therefore, the metals detected in groundwater samples may represent the total of dissolved metals and metals adhering to any suspended soil material that may be present in the samples.

Because metals are naturally occurring substances, they were detected in all media in PSC 45, generally within NAS Jacksonville established background levels. Because metals tend to adhere to particulate matter (similar to PAHs and PCBs), their release and migration patterns were found to be similar to these chemicals at PSC 45.

6.4 SUMMARY OF CONTAMINANT MIGRATION

The Conceptual Site Model for PSC 45 provided in Section 7.1 was developed based on site history and uses and site contaminant fate and transport pathways and processes. The primary source of contamination at PSC 45 is from contaminants associated with the Wash Rack Disposal Pit. Contaminants can migrate via several pathways, as discussed in Sections 7 and 8. Potential exposure routes and receptors are also discussed in Sections 7 and 8.

VOCs were detected infrequently and at low concentrations in soil, but were detected at relatively high concentrations in groundwater mostly associated with a second source unrelated to PSC 45 and mainly northwest of the former Wash Rack Disposal Pit at PSC 45.

SVOCs (including PAHs) were detected infrequently in soil and groundwater samples at PSC 45 and several of these site contaminants were present at concentrations greater than the risk-based screening criteria. Because SVOCs and PAHs have relatively low solubilities and very high K_d values, their mobility in soils is very limited; however, limited PAHs were detected in groundwater samples downgradient of the former Wash Rack Disposal Pit.

Metals were detected frequently in soil and groundwater samples at PSC 45, and a few of the metals were present at concentrations greater than the risk-based screening criteria. However, metals are naturally occurring chemicals and the levels of the metals present were generally consistent with established background levels, were generally below the applicable risk-based screening criteria, and

demonstrated no areas of relatively higher metals results that could be an indicator of metals-containing waste sources.

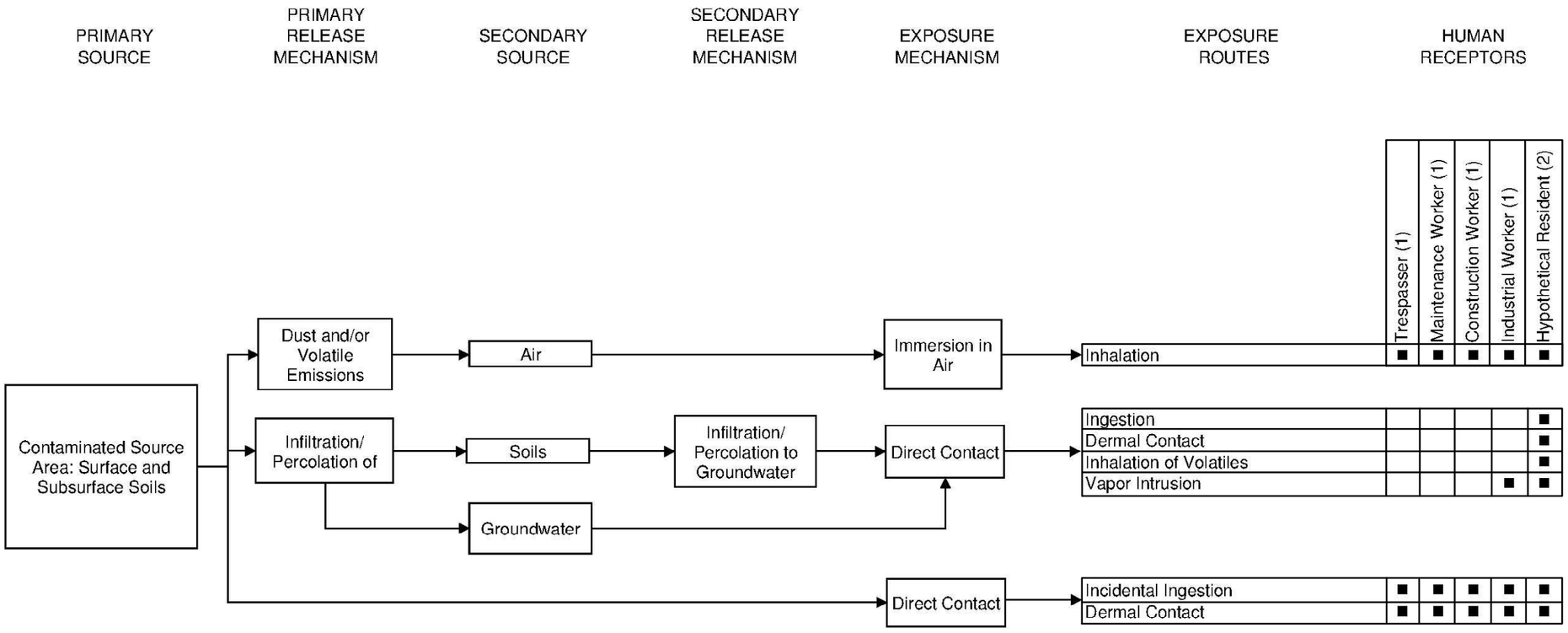
7.0 HUMAN HEALTH RISK ASSESSMENT

The objective of a HHRA is to characterize the risks associated with potential exposures to site-related constituents. For PSC 45 at NAS Jacksonville, the HHRA is being conducted as a Screening Risk Evaluation (SRE) due to the limited number of soil and groundwater samples that were collected during the RI. The Human Health SRE is an evaluation of potential risks from site constituents to human receptors at the site by comparing exposure concentrations (ECs) of chemicals to appropriate risk-based screening levels. At PSC 45, the focus of the investigation is on the soil and groundwater. Hypothetical future residents, industrial receptors, maintenance workers, adolescent trespassers, and potential future construction workers will be evaluated for potential risks associated with direct contact exposures to soil. Hypothetical future residents will be evaluated for potential risks associated with the household use of groundwater as tap water. The hypothetical future resident and industrial receptor will be evaluated for potential risks associated with inhaling chemicals that are volatilizing from groundwater and migrating through building foundations into indoor air.

7.1 CONCEPTUAL SITE MODEL

The subsurface soil surrounding the former Wash Rack Disposal Pit is a continuing source of contamination at PSC 45. The pipeline from the oil/water separator connected to the disposal pit is below the surface; therefore, there was no release of contaminants to the shallow surface soil (0.0 to 0.5 feet bls). Contaminants can, however, be leached from the soil where the pipeline is connected to the disposal pit and enter the groundwater through rainfall infiltration. In addition, groundwater may have been contaminated by the direct discharge of liquids into the groundwater from the bottom of the disposal pit (see Figure 7-1).

Current land use around PSC 45 is industrial and will remain so into the foreseeable future. The current route of exposure, which is related to the types of activites that occur at an industrial site, is limited to incidental ingestion of soil, dermal contact, and inhalation. While it is understood that shallow surface soils are not contaminated, it will be assumed that there still could be exposure to the deeper surface soils (0.5 to 2.0 feet bls). Other potential receptors include construction workers, maintenance workers, and adolescent trespassers. Construction workers and maintenanace workers are receptors that are more likely to be exposed to the deeper surface soils. It is unlikely that the industrial worker or the adolescent trespasser would be exposed to the deeper surface. However, if the deeper surface soil were to be disturbed and brought to the surface, these receptors could be exposed. For the sake of completion and determing whether there would be a need for land use controls, the future hypothetical residential receptor also is evaluated. It is assumed that future hypothetical residents could be exposed to deeper surface soil as a result of the construction of their homes.



LEGEND

■ Exposure Pathway To Be Quantitatively Evaluated In The Risk Assessment

(1) Potential Receptor Under Current Or Future Land Use
(2) Potential (But Unlikely) Receptor Under Future Land Use. Evaluated For Decision-Making Purposes.

DRAWN BY / DATE	K. MOORE 05/09/12
CHECKED BY / DATE	M. TRAXLER 12/14/12
REVISED BY / DATE	S. PAXTON 12/14/12
SCALE	AS NOTED

HUMAN HEALTH CONCEPTUAL EXPOSURE MODEL
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	112G01511
CTO NUMBER	CTO 112
APPROVED BY / DATE	— —
APPROVED BY / DATE	— —
FIGURE NO.	FIGURE 7 - 1
REV	0

While groundwater is not currently used for potable use, exposure to groundwater will be evaluated for the hypothetical future resident. In addition, because of the presence of VOCs in groundwater, the potential for vapor intrusion will be evaluated for hypothetical future residents and an industrial worker.

7.2 RISK ASSESSMENT METHODOLOGY

The Human Health SRE for direct contact exposures is conducted by generating a cancer risk or a noncancer hazard quotient (HQ) by creating ratios between the analyte EC and the appropriate screening value. In baseline risk assessments, the hazard index (HI) for a chemical is calculated from the sum of the HQs for each of the exposure routes (FDEP, 2005). The USEPA and the FDEP each have their own set of risk-based screening criteria for soil and groundwater and for residential and industrial receptors. The USEPA's risk-based concentrations are the RSLs, which are updated semiannually. The FDEP's risk-based concentrations are the CTLs, which were developed in 2005 (FDEP, 2005). The FDEP CTLs do not reflect any changes in toxicity factors since 2005 and not all are risk-based. Some of these CTLs are based on laboratory practical quantitation limits (PQLs) in cases where the risk-based CTL is less than the PQL. In the cases of groundwater, the CTLs are based on MCLs or organoleptic properties.

The Partnering Team agreed to replace the PSLs with the laboratory LOQs for decision making purposes, as suggested in "Guidance for the Selection of Analytical Methods for the Evaluation of Practical Quantitation Limits" (FDEP, 2004), in cases where the risk-based PSLs are lower than the values that are reasonably achievable following the best commercially available USEPA methods.

Risks were only calculated for those contaminants identified as COPCs.

A soil COPC for direct contact is defined as a chemical with a maximum detected concentration greater than the site-specific background concentration (for metals) and greater than the minimum of the following:

- USEPA residential soil carcinogenic RSL
- 10 percent of the USEPA residential soil noncarcinogenic RSL (USEPA, 2008)
- FDEP residential SCTL

Essential nutrients (e.g., calcium, magnesium, potassium, and sodium) are not considered COPCs.

A groundwater COPC is defined as a chemical with a maximum detected concentration greater than the site-specific background concentration (for metals) and greater than the minimum of the following:

- USEPA tap water carcinogenic RSL
- 10 percent of the USEPA tap water noncarcinogenic RSL (USEPA, 2008)
- FDEP GCTL

A soil COPC for leachability is defined as a chemical with a maximum detected concentration greater than the site-specific background concentration (for metals) and greater than the lesser of the following:

- USEPA RBSSL for protection of groundwater
- FDEP leachability criterion

If a contaminant was identified as a leachability COPC, but not as a groundwater COPC, it was not further evaluated as a leachability COPC. Also, soil leachability COPCs were not evaluated as a risk associated with direct contact unless it was identified as a direct contact COPC. Soil leachability COPCs were identified so remedial goals protective of groundwater could be developed for these contaminants.

For carcinogenic compounds, the incremental lifetime cancer risk (ILCR) is calculated as follows:

$$ILCR = \frac{(C)(TCR)}{RBC}$$

and for noncarcinogenic compounds, the hazard index (HI) is calculated as follows:

$$HI = \frac{(C)(THI)}{RBC}$$

where:

C	=	analyte EC in medium
RBC	=	appropriate risk-based conentration (e.g. RSL, CTL)
TCR	=	target risk level, 1×10^{-6}
THI	=	target hazard index, 1.0

Cancer risks will be compared to the USEPA's target risk level of 1×10^{-4} to 1×10^{-6} and the FDEP's acceptable risk level of 1×10^{-6}. For noncancer risks, HIs (i.e., the sum of the HQs for chemicals affecting the same target organ or producing the same effects) will be compared to the USEPA's and FDEP's acceptable level of 1.

Risk-based screening concentrations are provided by the USEPA as RSLs for residential and industial receptors. The FDEP risk-based screening concentrations, however, needed to be derived for residential and industrial receptors for those contaminants with non-risk-based CTLs or for those contaminants where only a carcinogenic value was provided, but noncarcinogenic toxicity values were available (or vice versa). The equations, exposure assumptions, and toxicity factors identified in the FDEP's *Technical Report: Development of Cleanup Target Levels* were used to develop the appropriate risk-based CTLs (FDEP, 2005). In addition, the USEPA and the FDEP do not have RSLs or CTLs for the other receptors being evaluated in this HHRA. Therefore, the equations used to develop RSLs and CTLs were used to develop receptor-specific RSLs and CTLs. The exposure assumptions and equations will be discussed in more detail in Section 7.4 and Appendix F of this report.

Industrial receptors or hypothetical future residents may also be exposed to COPCs that have volatilized from groundwater and migrated through building foundations into indoor air. Indoor air concentrations resulting from vapor intrusion from groundwater were estimated using the Johnson and Ettinger volatilization model (USEPA, 2004b). ECs, based on the predicted indoor air concentrations, were calculated for residential and industrial receptors in accordance with USEPA's *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)* (USEPA, 2009) and compared to the USEPA's residential and industrial air RSLs, respectively. The ratio approach used to derive ILCRs and HIs for soil and groundwater was also used for air.

7.3 HAZARD IDENTIFICATION

7.3.1 Soil Direct Contact COPCs

The selection of soil direct contact COPCs is presented in Table 7-1. At PSC 45, the soil direct contact COPCs are as follows:

- Metals (cadmium, chromium)
- cPAHs (benzo(a)anthracene, BAP, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and BAP equivalents)

Five of the seven individual cPAHs (benzo(a)anthracene, BAP, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-c,d)pyrene) were identified as COPCs in soil. The EC for cPAHs is also expressed in terms of BAP equivalents, where the concentration of each cPAH is equated to a concentration of BAP relative to their toxicity. For example, the toxicity equivalency factor (TEF) for benzo(a)anthracene is 0.1. This means that benzo(a)anthracene is relatively 10 times less toxic than

TABLE 7-1

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SOIL DIRECT CONTACT
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Scenario Timeframe:
Medium: Soil
Exposure Medium: Soil

Exposure Point	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Florida residential SCTL[5]	USEPA Adjusted Residential Soil RSL[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Site 45	**METALS**												
	Aluminum	209 J	4070 J	MG/KG	JAX-45-SB14-SB-06242011	10/10	-	4070	6823.2	80000	7700 N	No	BSL, BKG
	Antimony	0.08 J	0.15 J	MG/KG	JAX-45-SB11-SB-06242011	3/10	0.06 - 0.08	0.15	NC	27	3.1 N	No	BSL
	Arsenic	0.54 J	0.82	MG/KG	JAX-45-SB09-SB-06242011	10/10	-	0.82	1.48	2.1	**0.39 C**	No	BKG
	Barium	4.8 J	19.2 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	19.2	20.8	120	1500 N	No	BSL, BKG
	Beryllium	0.03 J	0.15 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.02 - 0.02	0.15	0.49	120	16 N	No	BSL, BKG
	Cadmium	0.05 J	15.8 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	15.8	NC	82	**7 N**	**Yes**	ASL
	Calcium	766	61000	MG/KG	JAX-45-SB11-SB-06242011	10/10	-	61000	668.3	NA	NA	No	NUT
	Chromium	2.6 J	28.9 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.64 - 0.64	28.9	14.1	210	**0.29 C[8]**	**Yes**	ASL
	Cobalt	0.08 J	1.3 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.03 - 0.03	1.3	NC	1700	2.3 N	No	BSL
	Copper	1.8 J	25.8	MG/KG	JAX-45-SB12-SB-06242011-D	10/10	-	25.8	NC	150	310 N	No	BSL
	Iron	193 J	2320 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	2320	5818.2	53000	5500 N	No	BSL, BKG
	Lead	3.2 J	136 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	136	6.46	400	400	No	BSL
	Magnesium	26 J	743 J	MG/KG	JAX-45-SB11-SB-06242011	10/10	-	743	500.25	NA	NA	No	NUT
	Manganese	6.7	70.7	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	70.7	6.9	3500	180 N	No	BSL
	Mercury	0.04	0.07	MG/KG	JAX-45-SB12-SB-06242011	1/10	0.02 - 0.04	0.07	NC	3	2.3 N[9]	No	BSL
	Nickel	0.74 J	3.9 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.12 - 0.12	3.9	NC	340	150 N	No	BSL
	Silver	0.03 J	0.08 J	MG/KG	JAX-45-SB12-SB-06242011	4/10	0.02 - 0.03	0.08	NC	410	39 N	No	BSL
	Vanadium	0.81 J	10	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	10	NC	67	39 N	No	BSL
	Zinc	1.7 J	623 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	623	14.49	26000	2300 N	No	BSL
	MISCELLANEOUS PARAMETERS												
	Total Solids	72	95	%	JAX-45-SB08-SB-06242011	10/10	-	95	NA	NA	NA	NA	NA
	PETROLEUM HYDROCARBONS												
	TPH (C08-C40)	28	250	MG/KG	JAX-45-SB05-SB-06242011	10/10	-	250	NA	460	NC	No	BSL
	POLYCYCLIC AROMATIC HYDROCARBONS												
	1-Methylnaphthalene	3.2 J	10 J	UG/KG	JAX-45-SB07-SB-06242011	6/10	1.8 - 2	10	NA	200000	22000 C	No	BSL
	2-Methylnaphthalene	2.6 J	13 J	UG/KG	JAX-45-SB07-SB-06242011	6/10	2.3 - 2.5	13	NA	210000	31000 N	No	BSL
	Acenaphthene	4 J	68	UG/KG	JAX-45-SB06-SB-06242011	7/10	1.7 - 1.7	68	NA	2400000	340000 N	No	BSL
	Acenaphthylene	2.3 J	11 J	UG/KG	JAX-45-SB08-SB-06242011	5/10	1.3 - 1.4	11	NA	1800000	340000 N[11]	No	BSL
	Anthracene	2.8 J	74	UG/KG	JAX-45-SB11-SB-06242011	8/10	1.3 - 1.4	74	NA	21000000	1700000 N	No	BSL
	Bap Equivalent-Halfnd	7.6714	446.02	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	446.02	NA	**100**	**15 C**	**Yes**	ASL
	Benzo(a)anthracene	2.5 J	280 J	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	280	NA	NC	**150 C**	**Yes**	ASL
	Benzo(a)pyrene	5 J	300	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	300	NA	**100**	**15 C**	**Yes**	ASL
	Benzo(b)fluoranthene	6.9 J	430	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	430	NA	NC	**150 C**	**Yes**	ASL
	Benzo(g,h,i)perylene	5.4 J	130	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	130	NA	2500000	170000 N[12]	No	BSL
	Benzo(k)fluoranthene	5 J	170	UG/KG	JAX-45-SB06-SB-06242011	9/10	3.6 - 3.6	170	NA	NC	1500 C	**Yes**	ASL
	Chrysene	3.4 J	320	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	320	NA	NC	15000 C	**Yes**	ASL
	Dibenzo(a,h)anthracene	2.8 J	49	UG/KG	JAX-45-SB06-SB-06242011	9/10	2.1 - 2.1	49	NA	NC	**15 C**	**Yes**	ASL
	Fluoranthene	5.5 J	660	UG/KG	JAX-45-SB11-SB-06242011	10/10	-	660	NA	3200000	230000 N	No	BSL
	Fluorene	6 J	46	UG/KG	JAX-45-SB06-SB-06242011	6/10	3.3 - 3.7	46	NA	2600000	230000 N	No	BSL
	Indeno(1,2,3-cd)pyrene	6.6 J	240	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	240	NA	NC	**150 C**	**Yes**	ASL
	Naphthalene	3 J	33	UG/KG	JAX-45-SB07-SB-06242011	5/10	2.7 - 3	33	NA	55000	3600 C	No	BSL
	Phenanthrene	2.2 J	360 J	UG/KG	JAX-45-SB06-SB-06242011, JAX-45-SB11-SB-06242011	10/10	-	360	NA	2200000	170000 N[12]	No	BSL

TABLE 7-1

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SOIL DIRECT CONTACT
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Scenario Timeframe:
Medium: Soil
Exposure Medium: Soil

Exposure Point	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Florida residential SCTL(5)	USEPA Adjusted Residential Soil RSL(6)	COPC Flag	Rationale for Contaminant Deletion or Selection(7)
Site 45	Pyrene	3.9 J	390 J	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	390	NA	2400000	170000 N	No	BSL
	SEMIVOLATILES												
	Bis(2-ethylhexyl)phthalate	220 J	230 J	UG/KG	JAX-45-SB12-SB-06242011-D	2/10	100 - 130	230	NA	72000	35000 C	No	BSL
	VOLATILES												
	Tetrachloroethene	2.1 J	7.2	UG/KG	JAX-45-SB11-SB-06242011	3/10	1.2 - 1.4	7.2	NA	8800	86 N(13)	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - To determine whether chemical concentrations were within background levels, the maximum detected site concentrations was compared to the site-specific background concentration.
5 - Florida Soil Cleanup Target Levels (SCTLs) for residential, direct exposure (FDEP, February 2005)
6 - USEPA RSLs for Chemicals at Superfund Sites, June 2011. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level and is statistically determined to be greater than site background.
8 - Value for hexavalent chromium.
9 - Value for mercuric chloride (and other mercury salts).
10 - Value for Aroclor-1260.
11 - Value for acenaphthene.
12 - Value for pyrene.
13 - Value based on IRIS update to toxicity values (February 2012).

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.
Associated Samples
JAX-45-SB05-SB-06242011
JAX-45-SB06-SB-06242011
JAX-45-SB07-SB-06242011
JAX-45-SB08-SB-06242011
JAX-45-SB09-SB-06242011
JAX-45-SB10-SB-06242011
JAX-45-SB11-SB-06242011
JAX-45-SB12-SB-06242011
JAX-45-SB12-SB-06242011-AVG
JAX-45-SB12-SB-06242011-D
JAX-45-SB13-SB-06242011
JAX-45-SB14-SB-06242011

Definitions:
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value
N = Noncarcinogen
NA = Not Applicable/Not Available
NC = No Criteria Available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level and site background.

For elimination as a COPC:
BKG = Less than Background Concentration
BSL = Below COPC Screening Level
NUT = Essential nutrient
NTX = No toxicity criteria

BAP; therefore, the toxicity of 1 microgram per kilogram (µg/kg) of benzo(a)anthracene is equivalent to the toxicity of 0.1 µg/kg of BAP. The TEFs for each cPAH are as follows:

- Benzo(a)anthracene 0.1
- Benzo(b)fluoranthene 0.1
- Benzo(k)fluoranthene 0.01
- Chrysene 0.001
- Dibenzo(a,h)anthracene 1.0
- Indeno(1,2,3-c,d)pyrene 0.1

For those samples where at least one cPAH was detected, one-half the DL is used as the value to derive the BAP equivalent concentration for each nondetected cPAH. The BAP equivalent concentration for each soil sample is presented in Table 5-2.

7.3.2 Groundwater COPCs

The selection of groundwater COPCs is presented in Table 7-2. At PSC 45, the groundwater COPCs are as follows.

- Metals (manganese)
- TPH
- cPAHs (benzo(a)anthracene, BAP, and BAP equivalents)
- PAHs (naphthalene, 1-methylnapthalene, and 2-methylnaphthalene)
- VOCs (1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, 1,4-dichlorobenzene, benzene, cis-1,2-dichloroethene, ethylbenzene, isopropylbenzene, total xylenes, tetrachloroethene, trichloroethene, and vinyl chloride)

Because results from DPT locations DPT 12, DPT 13, and DPT 22 are attributed to another source, data from the points have been excluded from COPCs for groundwater.

7.3.3 Soil Leachability COPCs

A soil COPC for leachability is defined as a chemical with a maximum detected concentration greater than the lesser of the following:

- USEPA RBSSL for protection of groundwater
- FDEP leachability criterion

TABLE 7-2

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - GROUNDWATER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Scenario Timeframe:
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Chemical	Minimum Concentration	Maximum Concentration	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[1]	Concentration Used for Screening[2]	Range of Background Concentrations[3]	Florida Groundwater CTL[4]	USEPA Adjusted Tapwater RSL[5]	USEPA MCL[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Site 45	**METALS**													
	Aluminum	58.7 J	2420	UG/L	JAX-45-B200-MW02S-20110504	4/4	-	2420	147318	**200**	**1600 N**	NC	No	BKG
	Arsenic	1.7 J	8.2	UG/L	JAX-45-B200-MW02D-20110504	2/4	1.43 - 1.43	8.2	13.2	10	**0.045 C**	10	No	BKG
	Barium	20.3	37.6	UG/L	JAX-45-B200-MW02S-20110504	4/4	-	37.6	616	2000	290 N	2000	No	BSL, BKG
	Calcium	8420	96600	UG/L	JAX-45-B200-MW01S-20110504	4/4	-	96600	59066	NC	NC	NC	No	NUT
	Chromium	0.88 J	6 J	UG/L	JAX-45-B200-MW02S-20110504	3/4	0.36 - 0.36	6	208	100	**0.031 C**[8]	100	No	BKG
	Cobalt	0.39 J	8.7 J	UG/L	JAX-45-B200-MW02D-20110504	4/4	-	8.7	22.6	140	**0.47 N**	NC	No	BKG
	Copper	1.5 J	3.5 J	UG/L	JAX-45-B200-MW02S-20110504	2/4	0.63 - 0.63	3.5	40.4	1000	62 N	1300	No	BSL,BKG
	Iron	1210	19800	UG/L	JAX-45-B200-MW02D-20110504	4/4	-	19800	68292	**300**	**1100 N**	NC	No	BKG
	Lead	1.1 J	2.4 J	UG/L	JAX-45-B200-MW02S-20110504	2/4	1.07 - 1.07	2.4	45.8	15	15 [9]	15	No	BSL,BKG
	Magnesium	2050	11500	UG/L	JAX-45-B200-MW02S-20110504	4/4	-	11500	19316	NC	NC	NC	No	NUT
	Manganese	104	231	UG/L	JAX-45-B200-MW01S-20110504	4/4	-	231	204	**50**	**32 N**	**2**	**Yes**	ASL
	Mercury	0.03 J	0.03 J	UG/L	JAX-45-B200-MW02S-20110504	1/4	0.01 - 0.01	0.03	0.98	2	0.43 N[10]	2	No	BSL,BKG
	Nickel	0.64 J	2.5 J	UG/L	JAX-45-B200-MW02S-20110504	4/4	-	2.5	74.8	100	30 N	NC	No	BSL,BKG
	Potassium	1190	5490	UG/L	JAX-45-B200-MW01S-20110504	4/4	-	5490	9038	NC	NC	NC	No	NUT
	Selenium	3 J	3 J	UG/L	JAX-45-B200-MW02S-20110504	1/4	2.36 - 2.36	3	13.8	50	7.8 N	50	No	BSL,BKG
	Silver	0.43 J	0.43 J	UG/L	JAX-45-B200-MW02D-20110504	1/4	0.27 - 0.27	0.43	9.4	100	7.1 N	NC	No	BSL,BKG
	Sodium	3770	9220	UG/L	JAX-45-B200-MW01D-20110504	4/4	-	9220	24626	160000	NC	NC	No	NUT
	Vanadium	0.29 J	5.2 J	UG/L	JAX-45-B200-MW02S-20110504	3/4	0.23 - 0.23	5.2	294	49	7.8 N	NC	No	BSL,BKG
	Zinc	5.7 J	17.5 J	UG/L	JAX-45-B200-MW01D-20110504	4/4	-	17.5	173.2	5000	470 N	NC	No	BSL,BKG
	PETROLEUM HYDROCARBONS													
	TPH (C08-C40)	310 J	12000	UG/L	JAX-45-B200-MW01S-20110504	2/4	140 - 140	12000	NA	**5000**	NC	NC	**Yes**	ASL
	POLYCYCLIC AROMATIC HYDROCARBONS													
	1-Methylnaphthalene	12	12	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.065 - 0.069	12	NA	28	**0.97 C**	NC	**Yes**	ASL
	2-Methylnaphthalene	9.3	9.3	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.074 - 0.078	9.3	NA	28	**2.7 N**	NC	**Yes**	ASL
	Acenaphthene	0.085 J	0.085 J	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.062 - 0.065	0.085	NA	20	40 N	NC	No	BSL
	Benzo(a)anthracene	0.14 J	0.14 J	UG/L	JAX-45-B200-MW02D-20110504	1/4	0.046 - 0.047	0.14	NA	**0.05**	**0.029 C**	NC	**Yes**	ASL
	Benzo(a)pyrene	0.16 J	0.16 J	UG/L	JAX-45-B200-MW02S-20110504	1/4	0.063 - 0.068	0.16	NA	0.2	**0.0029 C**	0.2	**Yes**	ASL
	Fluorene	0.081 J	0.081 J	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.059 - 0.062	0.081	NA	280	22 N	NC	No	BSL
	Naphthalene	52	52	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.062 - 0.065	52	NA	**14**	**0.14 C**	NC	**Yes**	ASL
	SEMIVOLATILES													
	1,1-Biphenyl	3.4 J	3.4 J	UG/L	JAX-45-B200-MW01S-20110504	1/4	2.6 - 2.7	3.4	NA	**0.5**	**0.083 N**	NC	**Yes**	ASL
	2,4-Dimethylphenol	12	12	UG/L	JAX-45-B200-MW01S-20110504	1/4	4.2 - 4.4	12	NA	140	27 N	NC	No	BSL
	di-n-Butyl Phthalate	4.1 J	4.1 J	UG/L	JAX-45-B200-MW01S-20110504	1/4	2.4 - 2.5	4.1	NA	700	67 N	NC	No	BSL
	VOLATILES													
	1,1-Dichloroethane	56	56	UG/L	JAX-45-B200-MW02D-20110504	1/4	0.21 - 0.21	56	NA	70	**2.4 C**	NC	**Yes**	ASL
	1,1-Dichloroethene	0.38 J	750	UG/L	JAX-45-B200-MW02D-20110504	2/4	0.35 - 0.35	750	NA	**7**	**26 N**	**7**	**Yes**	ASL
	1,2-Dichlorobenzene	8.6	8.6	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.15 - 0.15	8.6	NA	600	28 N	600	No	BSL
	1,2-Dichloroethane	20	20	UG/L	JAX-45-B200-MW02D-20110504	1/4	0.2 - 0.2	20	NA	**3**	**0.15 C**	**5**	**Yes**	ASL
	1,4-Dichlorobenzene	1.7	1.7	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.24 - 0.24	1.7	NA	75	**0.42 C**	75	**Yes**	ASL
	Benzene	0.34 J	1.1	UG/L	JAX-45-B200-MW02D-20110504	2/4	0.26 - 0.26	1.1	NA	**1**	**0.39 C**	5	**Yes**	ASL
	cis-1,2-Dichloroethene	2.2	13	UG/L	JAX-45-B200-MW01S-20110504	2/4	0.21 - 0.21	13	NA	70	**2.8 N**	70	**Yes**	ASL

TABLE 7-2

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - GROUNDWATER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Scenario Timeframe:
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Chemical	Minimum Concentration	Maximum Concentration	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[1]	Concentration Used for Screening[2]	Range of Background Concentrations[3]	Florida Groundwater CTL[4]	USEPA Adjusted Tapwater RSL[5]	USEPA MCL[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
Site 45	Cyclohexane	1.6	1.6	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.31 - 0.31	1.6	NA	NC	1300 N	NC	No	BSL
	Ethylbenzene	10	10	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.21 - 0.21	10	NA	30	**1.3 C**	700	**Yes**	ASL
	Isopropylbenzene	3.5	3.5	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.23 - 0.23	3.5	NA	**0.8**	39 N	NC	**Yes**	ASL
	Methyl Cyclohexane	3.4	3.4	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.3 - 0.3	3.4	NA	NC	NC	NC	No	NTX
	Tetrachloroethene	16	16	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.4 - 0.4	16	NA	**3**	**3.5 N**	**5**	**Yes**	ASL
	Toluene	0.36 J	24	UG/L	JAX-45-B200-MW01S-20110504	2/4	0.27 - 0.27	24	NA	40	86 N	1000	No	BSL
	Total Xylenes	44	44	UG/L	JAX-45-B200-MW01S-20110504	1/4	0.25 - 0.25	44	NA	**20**	**19 N**	10000	**Yes**	ASL
	Trichloroethene	0.31 J	390	UG/L	JAX-45-B200-MW02D-20110504	3/4	0.28 - 0.28	390	NA	**3**	**0.26 N**	**5**	**Yes**	ASL
	Vinyl Chloride	0.7 J	0.7 J	UG/L	JAX-45-B200-MW02D-20110504	1/4	0.25 - 0.25	0.7	NA	1	**0.015 C**	2	**Yes**	ASL

Footnotes:

1 - Values presented are sample-specific quantitation limits.
2 - The maximum detected concentration is used for screening purposes.
3 - To determine whether chemical concentrations were within background levels, the maximum detected site concentrations was compared to the site-specific background concentration.
4 - Florida Cleanup Target Levels (CTLs) for groundwater (FDEP, February 2005)
5 - USEPA RSLs for Chemicals at Superfund Sites, May 2012. The noncarcinogenic values (denoted with a "N" flag) are the screening level divided by 10 to correspond to a target hazard quotient of 0.1. Carcinogenic values represent an incremental cancer risk of 1.0E-06 (carcinogens denoted with a "C" flag).
6 - 2011 Edition of the Drinking Water Standards and Health Advisories (USEPA, January 2011).
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - Value for hexavalent chromium.
9 - MCL-based value.
10 - Value for mercuric chloride (and other mercury salts)

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples
JAX-45-B200-MW01D-20110504
JAX-45-B200-MW01S-20110504
JAX-45-B200-MW02D-20110504
JAX-45-B200-MW02S-20110504

Definitions:
C = Carcinogen
COPC = Chemical Of Potential Concern
J = Estimated value

N = Noncarcinogen
NC = No criteria available

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level and site background.

For elimination as a COPC:
BSL = Below COPC Screening Level
BKG =Less than Background Concentration
NUT = Essential nutrient
NTX = No toxicity criteria

The selection of soil leachability COPCs is presented in Table 7-3. At PSC 45, the soil leachability COPCs are as follows:

- Metals (cadmium, chromium, cobalt, copper, lead, manganese, mercury, and zinc)
- TPH
- cPAHs (BAP, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and BAP equivalents)
- PAHs (naphthalene and 1-methylnaphthalene)
- SVOCs (bis-2(ethylhexyl)phthalate)
- VOCs (tetrachloroethene)

Of these leachability COPCs, the following were identified as COPCs in groundwater:

- Metals (manganese)
- TPH
- cPAHs (BAP and benzo(a)anthracene)
- PAHs (naphthalene and 1-methylnaphthalene)
- VOCs (tetrachloroethene)

These soil leachability COPCs that are also groundwater COPCs should be evaluated in the FS with regard to protection of groundwater.

Risks were only calculated for the soil direct contact COPCs and the groundwater COPCs. The COPCs are summarized in Table 7-4.

7.4 EXPOSURE ASSESSMENT

7.4.1 Exposure Assumptions

For calculating risks for the USEPA risk evaluation, the default exposure assumptions for residential and industrial receptors are those used to develop the residential and industrial USEPA RSLs. Similarly for the FDEP risk evalaution, the default exposure assumptions for residential and industrial receptors are those used to develop the residential and industrial FDEP risk-based CTLs.

TABLE 7-3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SOIL MIGRATION TO GROUNDWATER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Scenario Timeframe:
Medium: Soil
Exposure Medium: Soil

Exposure Point	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Florida Leachibility Criteria[5]	USEPA Risk-based SSL for Protection of Groundwater[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
	METALS												
	Aluminum	209 J	4070 J	MG/KG	JAX-45-SB14-SB-06242011	10/10	-	4070	6823.2	NC	23000	No	BKG
	Antimony	0.08 J	0.15 J	MG/KG	JAX-45-SB11-SB-06242011	3/10	0.06 - 0.08	0.15	NC	5.4	0.27	No	BSL
	Arsenic	0.54 J	0.82	MG/KG	JAX-45-SB09-SB-06242011	10/10	-	0.82	1.48	NC	**0.0013**	No	BKG
	Barium	4.8 J	19.2 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	19.2	20.8	1600	120	No	BSL, BKG
	Beryllium	0.03 J	0.15 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.02 - 0.02	0.15	0.49	63	13	No	BSL, BKG
	Cadmium	0.05 J	15.8 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	15.8	NC	**7.5**	**0.52**	**Yes**	ASL
	Calcium	766	61000	MG/KG	JAX-45-SB11-SB-06242011	10/10	-	61000	668.3	NA	NA	No	NUT
	Chromium	2.6 J	28.9 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.64 - 0.64	28.9	14.1	38	**0.00059** [8]	**Yes**	ASL
	Cobalt	0.08 J	1.3 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.03 - 0.03	1.3	NC	NC	**0.21**	**Yes**	ASL
	Copper	1.8 J	25.8	MG/KG	JAX-45-SB12-SB-06242011-D	10/10	-	25.8	NC	NC	**22**	**Yes**	ASL
	Iron	193 J	2320 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	2320	5818.2	NC	**270**	No	BKG
	Lead	3.2 J	136 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	136	6.46	NC	**14** [9]	**Yes**	ASL
	Magnesium	26 J	743 J	MG/KG	JAX-45-SB11-SB-06242011	10/10	-	743	500.25	NA	NA	No	NUT
	Manganese	6.7	70.7	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	70.7	6.9	NC	**21**	**Yes**	ASL
	Mercury	0.04	0.07	MG/KG	JAX-45-SB12-SB-06242011	1/10	0.02 - 0.04	0.07	NC	2.1	**0.033**	**Yes**	ASL
	Nickel	0.74 J	3.9 J	MG/KG	JAX-45-SB12-SB-06242011	9/10	0.12 - 0.12	3.9	NC	130	20	No	BSL
	Silver	0.03 J	0.08 J	MG/KG	JAX-45-SB12-SB-06242011	4/10	0.02 - 0.03	0.08	NC	17	0.6	No	BSL
	Vanadium	0.81 J	10	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	10	NC	980	78	No	BSL
	Zinc	1.7 J	623 J	MG/KG	JAX-45-SB12-SB-06242011	10/10	-	623	14.49	NC	**290**	**Yes**	ASL
	PETROLEUM HYDROCARBONS												
	TPH (C08-C40)	28	250	MG/KG	JAX-45-SB05-SB-06242011	10/10	-	250	NA	340	NC	**Yes**	ASL
	POLYCYCLIC AROMATIC HYDROCARBONS												
	1-Methylnaphthalene	3.2 J	10 J	UG/KG	JAX-45-SB07-SB-06242011	6/10	1.8 - 2	10	NA	3100	**5.1**	**Yes**	ASL
	2-Methylnaphthalene	2.6 J	13 J	UG/KG	JAX-45-SB07-SB-06242011	6/10	2.3 - 2.5	13	NA	8500	140	No	BSL
	Acenaphthene	4 J	68	UG/KG	JAX-45-SB06-SB-06242011	7/10	1.7 - 1.7	68	NA	2100	4100	No	BSL
	Acenaphthylene	2.3 J	11 J	UG/KG	JAX-45-SB08-SB-06242011	5/10	1.3 - 1.4	11	NA	27000	4100 [11]	No	BSL
	Anthracene	2.8 J	74	UG/KG	JAX-45-SB11-SB-06242011	8/10	1.3 - 1.4	74	NA	2500000	42000	No	BSL
	Bap Equivalent-Halfnd	7.6714	446.02	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	446.02	NA	NC	**3.5**	**Yes**	ASL
	Benzo(a)anthracene	2.5 J	280 J	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	280	NA	800	**10**	**Yes**	ASL
	Benzo(a)pyrene	5 J	300	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	300	NA	8000	**3.5**	**Yes**	ASL
	Benzo(b)fluoranthene	6.9 J	430	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	430	NA	2400	**35**	**Yes**	ASL
	Benzo(g,h,i)perylene	5.4 J	130	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	130	NA	32000000	9500 [12]	No	BSL
	Benzo(k)fluoranthene	5 J	170	UG/KG	JAX-45-SB06-SB-06242011	9/10	3.6 - 3.6	170	NA	24000	350	No	BSL
	Chrysene	3.4 J	320	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	320	NA	77000	1100	No	BSL
	Dibenzo(a,h)anthracene	2.8 J	49	UG/KG	JAX-45-SB06-SB-06242011	9/10	2.1 - 2.1	49	NA	700	**11**	**Yes**	ASL
	Fluoranthene	5.5 J	660	UG/KG	JAX-45-SB11-SB-06242011	10/10	-	660	NA	1200000	70000	No	BSL
	Fluorene	6 J	46	UG/KG	JAX-45-SB06-SB-06242011	6/10	3.3 - 3.7	46	NA	160000	4000	No	BSL
	Indeno(1,2,3-cd)pyrene	6.6 J	240	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	240	NA	6600	**120**	**Yes**	ASL
	Naphthalene	3 J	33	UG/KG	JAX-45-SB07-SB-06242011	5/10	2.7 - 3	33	NA	1200	**0.47**	**Yes**	ASL
	Phenanthrene	2.2 J	360 J	UG/KG	JAX-45-SB06-SB-06242011, JAX-45-SB11-SB-06242011	10/10	-	360	NA	250000	9500 [12]	No	BSL
	Pyrene	3.9 J	390 J	UG/KG	JAX-45-SB06-SB-06242011	10/10	-	390	NA	880000	9500	No	BSL

TABLE 7-3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SOIL MIGRATION TO GROUNDWATER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Scenario Timeframe:
Medium: Soil
Exposure Medium: Soil

Exposure Point	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Florida Leachibility Criteria(5)	USEPA Risk-based SSL for Protection of Groundwater(6)	COPC Flag	Rationale for Contaminant Deletion or Selection(7)
	SEMIVOLATILES												
	Bis(2-ethylhexyl)phthalate	220 J	230 J	UG/KG	JAX-45-SB12-SB-06242011-D	2/10	100 - 130	230	NA	3600000	**17**	**Yes**	ASL
	VOLATILES												
	Tetrachloroethene	2.1 J	7.2	UG/KG	JAX-45-SB11-SB-06242011	3/10	1.2 - 1.4	7.2	NA	30	**0.033** (13)	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - To determine whether chemical concentrations were within background levels, the maximum detected site concentrations was compared to the site-specific background concentration.
5 - Florida Soil Cleanup Target Levels (SCTLs) for leachibility based on groundwater criteria (FDEP, February 2005)
6 - USEPA RSLs for Chemicals at Superfund Sites, June 2011.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level and is statistically determined to be greater than site background.
8 - Value for hexavalent chromium.
9 - MCL-based SSL.
10 - Value for Aroclor-1260.
11 - Value for acenaphthene.
12 - Value for pyrene.
13 - Value based on IRIS update to toxicity values (February 2012).

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
COPC = Chemical Of Potential Concern
J = Estimated value
NA = Not Applicable/Not Available
NC = No Criteria Available
SSL = Soil Screening Level

Rationale Codes:
For selection as a COPC:
ASL = Above Screening Level and site background.

For elimination as a COPC:
BKG = Less than Background Concentration
BSL = Below COPC Screening Level
NUT = Essential nutrient
NTX = No toxicity criteria

Associated Samples
JAX-45-SB05-SB-06242011
JAX-45-SB06-SB-06242011
JAX-45-SB07-SB-06242011
JAX-45-SB08-SB-06242011
JAX-45-SB09-SB-06242011
JAX-45-SB10-SB-06242011
JAX-45-SB11-SB-06242011
JAX-45-SB12-SB-06242011
JAX-45-SB12-SB-06242011-AVG
JAX-45-SB12-SB-06242011-D
JAX-45-SB13-SB-06242011
JAX-45-SB14-SB-06242011

TABLE 7-4

SUMMARY OF COPCs
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Parameter	Soil Direct Contact	Soil Leachability	Groundwater
Metals			
Cadmium	x	x	
Chromium	x	x	
Cobalt		x	
Copper		x	
Iron			
Lead		x	
Manganese		x	x
Mercury		x	
Zinc		x	
Petroleum Hydrocarbons			
TPH		x	x
Polycyclic Aromatic Hydrocarbons			
BAP Equivalents	x		
1-Methylnaphthalene		x	x
2-Methylnaphthalene			x
Benzo(a)anthracene		x	x
BAP		x	x
Benzo(b)fluoranthene		x	
Dibenzo(a,h)anthracene		x	
Indeno(123-cd)pyrene		x	
Naphthalene		x	x
Semivolatile Organic Compounds			
Bis(2-ethylhexyl)phthalate		x	
Volatile Organic Compounds			
1,1-Dichloroethane			x
1,1-Dichloroethene			x
1,2-Dichloroethane			x
1,4-Dichlorobenzene			x
Benzene			x
cis-1,2-Dichloroethene			x
Ethylbenzene			x
Isopropylbenzene			x
Total Xylenes			x
Tetrachloroethene		x	x
Trichloroethene			x
Vinyl Chloride			x

Shaded cells indicate that the maximum identified concentration of the analyte exceeds the Soil Leachability PSL, but is not present in groundwater at a concentration exceeding the groundwater PSL.

To derive soil RSLs or SCTLs for the maintenance worker, construction worker, and the adolescent trespasser, exposure assumptions were defined using relevant guidance documents or professional judgment. These exposure assumptions were incorporated into the equations used to derive the RSLs and CTLs for USEPA and FDEP, respectively. The exposure assumptions for the receptors evaluated in this risk evaluation are summarized in Table 7-5.

A summary of the calculations for these non-default RSLs and CTLs is provided in Appendix F. The first part of Appendix F illustrates the calculation of USEPA-derived RSLs for the maintenance worker, construction worker, and the adolescent trespasser for soil direct contact COPCs. USEPA's current residential and industrial RSLs for soil and tap water are being used in the risk evaluation; therefore, no calculations were needed for residential or industrial exposure to soil or exposure to groundwater. The second part of Appendix F illustrates the calculation of FDEP-derived SCTLs for the residential receptor, industrial worker, maintenane worker, construction worker, and the adolescent trespasser and risk-based FDEP-derived GCTLs. When risk-based values were not available in FDEP's SCTL and GCTL list for specific contaminants, the ones derived in Appendix I provide the basis for the risk evaluation.

A maintenance worker is essentially equivalent to an industrial worker. The only difference between the maintenance worker and the industrial worker is the expsoure frequency. It is assumed that the maintenance worker is only present at the site one day per week (50 days per year).

The construction worker is only present at a site for the duration of the project. Therefore, it is assumed that a construction project would have a duration for one year (exposure duration) and the worker is present 250 days per year (exposure frequency). The soil ingestion rate of 330 milligrams per day is greater than what is expected during normal industrial exposure (100 millligrams per day). Also, the soil adherance factor (0.3 milligram per square centimeter [mg/cm^2]) is greater than what is expected during normal industrial exposure (0.2 mg/cm^2). Because of the disruptive nature of construction activities, the particulate emissions factor is reduced to reflect a greater density of particulates in air (1.62×10^6 cubic meters per kilogram [m^3/kg]) relative to normal industrial exposures (1.4×10^9 m^3/kg).

The adolescent trespasser is assumed to be between the ages of 6 and 16. Hence, the trespasser's exposure duration is only 10 years and the average body weight over this period is 43 kilograms. It is assumed that the trespasser visits the site 1 day every 2 weeks (26 days per year). The trespasser's surface area exposure to soil is based on the average surface area of the head, hands, forearms, lower legs, and feet.

TABLE 7-5

SUMMARY OF EXPOSURE ASSUMPTIONS TO DERIVE RECEPTOR-SPECIFIC RSLs AND CTLs
REMEDIAL INVESTIGATION REPORT
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Derivation of EPA RSLs

Parameter	Units	Residential [1]	Industrial [2]	Construction Worker	Maintenance Worker	Adolescent Trespasser
Target Cancer Risk	unitless	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
Target Hazard Index	unitless	1	1	1	1	1
Soil Ingestion Rate (adult)	mg/day	100	100	330 [3]	100 [2]	100 [1]
Soil Ingestion Rate (child)	mg/day	200	NA	NA	NA	NA
Fraction Ingested	unitless	1	1	1	1	1
Skin Surface Area (adult)	cm^2/day	5700	3300	3300 [4]	3300 [4]	5300 [5]
Skin Surface Area (child)	cm^2/day	2800	NA	NA	NA	NA
Soil to Skin Adherance Factor (adult)	mg/cm^2	0.07	0.2	0.3 [4]	0.2 [2]	0.2 [4]
Soil to Skin Adherance Factor (child)	mg/cm^2	0.2	NA	NA	NA	NA
Absorption Factor	unitless	chemical-specific	chemical-specific	chemical-specific	chemical-specific	chemical-specific
Exposure Time	hr/day	24	8	8 [6]	8 [2]	4 [6]
Exposure Frequency	day/yr	350	250	250 [3]	50 [6]	26 [6]
Exposure Duration (adult)	yr	24	25	1 [6]	25 [2]	10 [6]
Exposure Duration (child)	yr	6	NA	NA	NA	NA
Body Weight (adult)	kg	70	70	70	70	43 [7]
Body Weight (child)	kg	15	NA	NA	NA	NA
Averaging Time (carcinogen)	days	25550	25550	25550	25550	25550
Averaging Time (noncarcinogen)	days	8760	9125	365	9125	3650
Particulate Emission Factor	m^3/kg	1.31E+09	1.40E+09	1.62E+06 [3]	1.4E+09 [2]	1.4E+09 [2]
Volatilization Factor	m^3/kg	chemical-specific	chemical-specific	chemical-specific	chemical-specific	chemical-specific

Derivation of FDEP Cleanup Target Levels

Parameter	Units	Residential [8]	Industrial [9]	Construction Worker	Maintenance Worker	Adolescent Trespasser
Target Cancer Risk	unitless	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
Target Hazard Index	unitless	1	1	1	1	1
Soil Ingestion Rate (carcinogen)	mg/day	120	50	330 [3]	50 [9]	100 [1]
Soil Ingestion Rate (noncarcinogen)	mg/day	200	50	330 [3]	50 [9]	100 [1]
Fraction from Contaminated Source	unitless	1	1	1	1	1
Relative Bioavailability Factor	unitless	1	1	1	1	1
Skin Surface Area (carcinogen)	cm^2/day	4810	3500	3300 [4]	3500 [9]	5300 [5]
Skin Surface Area (noncarcinogen)	cm^2/day	2960	3500	3300 [4]	3500 [9]	5300 [5]
Soil to Skin Adherance Factor (carcinogen)	mg/cm^2	0.1	0.2	0.3 [4]	0.2 [9]	0.2 [4]
Soil to Skin Adherance Factor (noncarcinogen)	mg/cm^2	0.2	0.2	0.3 [4]	0.2 [9]	0.2 [4]
Dermal Absorption	unitless	chemical-specific	chemical-specific	chemical-specific	chemical-specific	chemical-specific
Inhalation Rate (carcinogen)	m^3/day	12.2	20	20 [9]	20 [9]	20 [9]
Inhalation Rate (noncarcinogen)	m^3/day	8.1	20	20 [9]	20 [9]	20 [9]
Exposure Frequency	day/yr	350	250	250 [3]	50 [6]	26 [6]
Exposure Duration (carcinogen)	yr	30	25	1 [6]	25 [9]	10 [6]
Exposure Duration (noncarcinogen)	yr	6	25	1 [6]	25 [9]	10 [6]
Body Weight (carcinogen)	kg	51.9	76.1	76.1 [9]	76.1 [9]	43 [7]
Body Weight (noncarcinogen)	kg	16.8	76.1	76.1 [9]	76.1 [9]	43 [7]
Averaging Time (carcinogen)	days	25550	25550	25550	25550	25550
Averaging Time (noncarcinogen)	days	2190	9125	365	9125	3650
Particulate Emission Factor	m^3/kg	1.24E+09	1.24E+09	1.62E+06 [3]	1.24E+09 [9]	1.24E+09 [9]
Volatilization Factor	m^3/kg	chemical-specific	chemical-specific	chemical-specific	chemical-specific	chemical-specific

Notes
(1) USEPA, 2011 EPA Regional Screening Levels User's Guide (Default Residential Values)
(2) USEPA, 2011 EPA Regional Screening Levels User's Guide (Default Industrial Values)
(3) USEPA, 2002 Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites OSWER 9355.4-24
(4) USEPA, 2004 Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005
(5) USEPA, 2004 Dermal Guidance assumptions for head, hands, forearms, lower legs, and feet.
(6) Professional judgment.
(7) USEPA, 2011 Exposure Factors Handbook: 2011 Edition. EPA/600/R-090/052F. Average body weight for ages 6 through 16.
(8) FDEP, 2005 Technical Report: Development of Cleanup Target Levels (Default Residential Values)
(9) FDEP, 2005 Technical Report: Development of Cleanup Target Levels (Default Industrial Values)

When similar exposure assumptions for the residential or industrial receptor are applicable to the other receptors for the derivation of USEPA receptor-specific RSLs, similar assumptions were applied to the derivation of FDEP receptor-specific CTLs. For example, the USEPA adult body weight is 70 kilograms, but the FDEP adult body weight is 76.1 kilograms. Therefore, for adult receptors such as the mainteance worker and the construction worker, 70 kilograms was used as the body weight for the derivation of USEPA receptor-specific RSLs and 76.1 kilograms was used as the body weight for the derivation of FDEP receptor-specific SCTLs.

It is also important to note that toxicity factors different than those used by the USEPA may be used to develop soil and groundwater risk-based screening values for the FDEP risk evaluation because the values provided in the FDEP guidance document, *Technical Report: Development of Cleanup Target Levels* (FDEP, 2005) are those that form the basis for the derivation of the CTLs. These are provided in the backup calculations provided in Appendix F.

A summary of all risk-based RSLs and CTLs for all receptors is presented in Table 7-6 and their derivation is presented in Appendix F.

7.4.2 Exposure Concentrations

An exposure point concentration (EPC) is an estimate of a chemical concentration in an exposure unit (EU), and is used to estimate exposure intakes. An EU is the area over which receptor activity is expected. The entire area associated with PSC 45 was evaluated as one EU. EPCs for soil were developed using all the soil data. The 95 percent upper confidence limit (UCL) of the mean was selected as the EPC unless the UCL exceeded the maximum detected concentration. In this case, the maximum detected concentration was used as the EPC. The maximum detected concentration was also used as an EPC in the event of an insufficient number of detections. EPCs were calculated using the FDEP's FLUCL tool. This program calculates a 95 percent UCL using the optimal method, given the characteristics of the data. Table 7-7 provides a summary of the EPCs for the COPCs (see Appendix G).

For groundwater, only four permanent monitoring well groundwater samples were collected. DPT results for locations 12, 13, and 22 are attributed to another sources area. Therefore, the maximum detected concentration served as the basis for the EPC for groundwater. These are also summarized in Table 7-7.

TABLE 7-6

RECEPTOR-SPECIFIC RSLs AND CTLs
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

USEPA SOIL		Noncarcinogenic					Carcinogenic				
Parameter	Units	Residential	Industrial	Maintenance Worker	Construction Worker	Adolescent Trespasser	Residential	Industrial	Maintenance Worker	Construction Worker	Adolescent Trespasser
Cadmium	mg/kg	70	800	4020	94	4200	1800	9300	47700	276	460000
Chromium	mg/kg	230	3100	15300	402	18000	0.29	5.6	28	5	28
BaP Equivalents	ug/kg	NA	NA	NA	NA	NA	15	210	1000	400	800

FDEP SOIL		Noncarcinogenic					Carcinogenic				
Parameter	Units	Residential	Industrial	Maintenance Worker	Construction Worker	Adolescent Trespasser	Residential	Industrial	Maintenance Worker	Construction Worker	Adolescent Trespasser
Cadmium	mg/kg	82	2700	8400	195	4900	2030	3060	15000	1000	42000
Chromium	mg/kg	210	3100	13000	20	8900	310	470	2400	15	6400
BaP Equivalents	ug/kg	NA	NA	NA	NA	NA	100	700	3300	3000	4800

Groundwater and Air	Noncarcinogenic				Carcinogenic			
Parameter	USEPA Tap Water RSL (ug/L)	FDEP GCTL (ug/L)	Residential Air (ug/m^3)	Industrial Air (ug/m^3)	USEPA Tap Water RSL (ug/L)	FDEP GCTL (ug/L)	Residential Air (ug/m^3)	Industrial Air (ug/m^3)
Manganese	320	329	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	NA	280	NA	NA	NA	NA	NA	NA
BaP Equivalents	NA	NA	NA	NA	0.0029	0.005	NA	NA
1-Methylnaphthalene	460	28	NA	NA	0.97	NA	NA	NA
2-Methylnaphthalene	27	28	NA	NA	NA	NA	NA	NA
Naphthalene	6.1	140	3.1	13	0.14	NA	0.072	0.36
1,1-Dichloroethane	2900	700	NA	NA	2.4	NA	1.5	7.7
1,1-Dichloroethene	260	350	210	880	NA	NA	NA	NA
1,2-Dichloroethane	13	210	7.3	31	0.15	0.4	0.094	0.47
1,4-Dichlorobenzene	470	210	830	3500	0.42	1.5	0.22	1.1
Benzene	29	28	31	130	0.39	0.6	0.31	1.6
cis-1,2-Dichloroethene	28	70	NA	NA	NA	NA	NA	NA
Ethylbenzene	670	700	1000	4400	1.3	NA	0.97	4.9
Isopropylbenzene	390	700	420	1800	NA	NA	NA	NA
Xylenes	190	1400	100	440	NA	NA	NA	NA
Tetrachloroethene	35	70	42	180	9.7	0.7	9.4	47
Trichloroethene	2.6	42	2.1	8.8	0.44	3.2	0.43	3
Vinyl Chloride	36	21	100	440	0.015	0.05	0.16	2.8

NA - Not Applicable
CTL - Cleanup Target Level
RSL - Regional Screening Level
GCTL - Groundwater Cleanup Target Level
µg/L - micrograms per liter
$\mu g/m^3$ - micrograms per cubic meter
BaP - Benzo(a)pyrene

TABLE 7-7

COPC EXPOSURE POINT CONCENTRATIONS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Parameter	Soil [1] mg/kg	Groundwater [2] µg/L
Metals		
Cadmium	3.5 [3]	N/A
Chromium	11.1 [4]	6
Manganese	N/A	231
Petroleum Hydrocarbons		
TPH	N/A	12000
Polycyclic Aromatic Hydrocarbons		
1-Methylnaphthalene	N/A	12
2-Methylnaphthalene	N/A	9.3
BAP Equivalents	0.446 [2]	0.2
Naphthalene	N/A	52
Volatile Organic Compounds		
1,1-Dichloroethane	N/A	56
1,1-Dichloroethene	N/A	750
1,2-Dichloroethane	N/A	20
1,4-Dichlorobenzene	N/A	1.7
Benzene	N/A	1.1
cis-1,2-Dichloroethene	N/A	13
Ethylbenzene	N/A	10
Isopropylbenzene	N/A	3.5
Total Xylenes	N/A	44
Tetrachloroethene	NA	16
Trichloroethene	N/A	390
Vinyl Chloride	N/A	0.7

Notes:
(1) Determination of Soil EPCs is presented in Appendix I
(2) Maximum Detected Concentration
(3) 95 Percent Chebyshev (MVUE) UCL
(4) 95 percent Nonparametric Chebyshev (Mean, StD) UCL

7.5 VAPOR INTRUSION

The USEPA's Johnson and Ettinger vapor intrusion model (USEPA, 2004b) was used to evaluate risks to potential, future receptors hypothetically exposed to VOCs migrating from the groundwater to the indoor air of a building at PSC 45. HIs and ILCRs were estimated for two scenarios. It was assumed that a hypothetical residence or an industrial building was placed over the groundwater plume with the maximum detected groundwater concentration providing the basis for predicting the indoor air concentrations.

Input parameters for the Johnson and Ettinger vapor intrusion model are presented in Table 7-8. Slab on grade construction was assumed. Therefore, the model default value of 15 centimeters was used as the depth below grade to the bottom of the floor space. The average depth to groundwater at PSC 45 is

152 centimeters (5 feet). The average soil/groundwater temperature was obtained from the USEPA's *User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings* (USEPA, 2004b). The bulk density, total porosity, and water-filled porosity are the model recommended values for sandy clay. The default building-related properties, as outlined in the USEPA's *Users' Guide for Evaluating Subsurface Vapor Intrusion into Buildings* (USEPA, 2004b) were used as inputs into the model.

TABLE 7-8

INPUT PARAMETERS FOR THE JOHNSON AND ETTINGER MODEL
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Input Parameter	Default Value
Depth below grade to bottom of enclosed space (centimeter)	15
Depth below grade to water table (centimeter)	152
SCS soil type directly above water table	Sandy Clay
Average soil/groundwater temperature (°C)	20
Vadose zone SCS soil type	Sandy Clay
Vadose zone soil dry bulk density (gm/cm^3)	1.63
Vadose zone soil total porosity (unitless)	0.385
Vadose zone soil water-filled porosity (cm^3/cm^3)	0.197

Notes:
gm/cm^3 = gram per cubic centimeter
cm^3/cm^3 = cubic centimeter per cubic centimeter

The output from the Johnson and Ettinger vapor intrusion model is presented in Appendix H. The model-predicted indoor air concentrations are presented in Table 7-9.

ECs were calculated for residential and industrial exposure using the predicted indoor air concentrations from the Johnson and Ettinger model and in accordance with the USEPA's *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)* (USEPA, 2009).

TABLE 7-9

JOHNSON AND ETTINGER MODELING RESULTS AND EXPOSURE CONCENTRATIONS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Parameter	Maximum Groundwater Concentration (ug/L)	J-E Predicted Indoor Air Concentration (ug/m^3)	Residential Noncarcinogenic EC (ug/m^3)	Residential Carcinogenic EC (ug/m^3)	Industrial Noncarcinogenic EC (ug/m^3)	Industrial Carcinogenic EC (ug/m^3)	Residential Noncarcinogenic RSL (ug/m^3)	Residential Carcinogenic RSL (ug/m^3)	Industrial Noncarcinogenic RSL (ug/m^3)	Industrial Carcinogenic RSL (ug/m^3)
1,1-Dichloroethane	56	2.21E-01	2.12E-01	9.06E-02	5.08E-02	1.80E-02	NA	1.5	NA	7.7
1,1-Dichloroethene	750	8.29E+00	7.96E+00	3.40E+00	1.91E+00	6.76E-01	210	NA	880	NA
1,2-Dichloroethane	20	2.88E-02	2.76E-02	1.18E-02	6.62E-03	2.35E-03	7.3	0.094	31	0.47
cis-1,2-Dichloroethene	13	4.46E-02	4.28E-02	1.83E-02	1.03E-02	3.63E-03	NA	NA	NA	NA
Tetrachloroethene	16	1.07E-01	1.03E-01	4.39E-02	2.46E-02	8.72E-03	42	9.4	180	47
Trichloroethene	390	2.01E+00	1.93E+00	8.24E-01	4.62E-01	1.64E-01	2.1	0.43	8.8	3
Vinyl Chloride	0.7	9.42E-03	9.04E-03	3.86E-03	2.17E-03	7.68E-04	100	0.16	440	2.8
Naphthalene	52	3.27E-02	3.14E-02	1.34E-02	7.52E-03	2.67E-03	3.1	0.072	13	0.36
1-Methylnaphthalene	12	7.17E-03	6.88E-03	2.94E-03	1.65E-03	5.84E-04	NA	NA	NA	NA
2-Methylnaphthalene	9.3	5.56E-03	5.34E-03	2.28E-03	1.28E-03	4.53E-04	NA	NA	NA	NA
1,4-Dichlorobenzene	1.7	3.46E-03	3.32E-03	1.42E-03	7.96E-04	2.82E-04	830	0.22	3500	1.1
Benzene	1.1	4.33E-03	4.16E-03	1.78E-03	9.96E-04	3.53E-04	31	0.31	130	1.6
Ethylbenzene	10	3.95E-02	3.79E-02	1.62E-02	9.09E-03	3.22E-03	1000	0.97	4400	4.9
Isopropylbenzene	3.5	1.72E-02	1.65E-02	7.05E-03	3.96E-03	1.40E-03	420	NA	1800	NA
Xylenes	44	1.79E-01	1.72E-01	7.34E-02	4.12E-02	1.46E-02	100	NA	440	NA

NA - Not Applicable
EC - Exposure Concentration
RSL - Regional Screening Level
GCTL - Groundwater Cleanup Target Level
µg/L - micrograms per liter
$\mu g/m^3$ - micrograms per cubic meter

ECs are defined by the following equation:

$$EC = \frac{(C_{air})(ET)(EF)(ED)}{(AT)(24\,hours/day)}$$

where:

EC	=	exposure concentration ($\mu g/m^3$)
C_{air}	=	model-predicted indoor air concentration ($\mu g/m^3$)
ET	=	exposure time (hours per day)
EF	=	exposure frequency (days per year)
ED	=	exposure duration (30 years)
AT	=	averaging time (days) for non-carcinogens, AT = ED x 365 days per year for carcinogens, AT = 70 years x 365 days per year

The exposure assumptions for converting the model-predicted indoor air concentrations to ECs for residential and industrial exposures are presented in Table 7-5. The residential and industrial ECs are presented in Table 7-9.

7.6 RISK CHARACTERIZATION

The risk evaluation was conducted using the risk-ratio technique described in Section 7.2. The EPCs for soil and groundwater COPCs were compared to the receptor-specific RSLs or CTLs to calculate cancer and noncancer risks. In addition, ECs (see Table 7-9) derived from the Johnson and Ettinger Model predicted indoor air concentrations based on the use of location-specific input parameters listed in Table 7-8, and maximum detected groundwater concentrations listed in Table 7-7 were compared to the USEPA residential and industrial air RSLs to calculate vapor intrusion risks. The risk calculations for exposure to soil, groundwater, and vapor intrusion are presented in Appendix I.

Table 7-10 summarizes the risks using the USEPA-derived and receptor-specific RSLs. The cancer risks for exposure to soil by the hypothetical future resident, the industrial worker, and the construction worker were within the USEPA's target risk range. The cancer risks for exposure to soil by the maintenance worker and the adolescent trespasser were less than the target risk range. The noncancer HIs for exposure to soil by all receptors were less than the target of 1. The risks for using groundwater as tap water exceeded the USEPA's target risk range of 10^{-4} to 10^{-6} and the target HI of 1. The cancer risk associated with vapor intrusion for the hypothetical future resident was within the target risk range, but was less than the target risk range for the industrial receptor. The noncancer HI associated with vapor intrusion for residential exposure was equal to the target of 1, but the HI for industrial exposure was less than the target of 1.

TABLE 7-10

RISK CHARACTERIZATION SUMMARY – USEPA BASIS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Receptor	Cancer Risks (ILCR)			Noncancer Risks (HI)		
	Soil	Groundwater	Vapor Intrusion	Soil	Groundwater	Vapor Intrusion
Resident	6.8E-05	1.6E-03	2.5E-06	9.8E-02	1.7E+02	1.0
Industrial	4.1E-06	NA	7.8E-08	8.0E-03	NA	5.9E-02
Maintenance Worker	8.4E-07	NA	NA	1.6E-03	NA	NA
Construction Worker	3.3E-06	NA	NA	6.5E-02	NA	NA
Adolescent Trespasser	9.5E-07	NA	NA	1.5E-03	NA	NA

Note:
NA - Exposure pathway was not analyzed.

Table 7-11 summarizes the risks using FDEP-derived and receptor-specific CTLs. The cancer risk for exposure to soil by the hypothetical future resident exceeded the target risk level; however, the cancer risks for exposure to soil by all other evaluated receptors were less than the target risk level. The noncancer HIs for exposure to soil by all receptors were less than the target of 1. The risks for using groundwater as tap water exceeded FDEP's target risk level of 10^{-6} and the target hazard index of 1. The cancer risk associated with vapor intrusion for the hypothetical future resident exceeded FDEP's target risk level, but was less than the target risk level for the industrial receptor. The noncancer HI associated with vapor intrusion for residential exposure was equal to the target of 1, but the HI for industrial exposure was less than the target of 1.

TABLE 7-11

RISK CHARACTERIZATION SUMMARY – FDEP BASIS
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Receptor	Cancer Risks (ILCR)			Noncancer Risks (HI)		
	Soil	Groundwater	Vapor Intrusion	Soil	Groundwater	Vapor Intrusion
Resident	4.5E-06	2.6E-04	2.5E-06	9.6E-02	5.7E+01	1.0
Industrial	6.6E-07	NA	7.8E-08	6.2E-03	NA	5.9E-02
Maintenance Worker	1.4E-07	NA	NA	1.3E-03	NA	NA
Construction Worker	8.9E-07	NA	NA	5.7E-01	NA	NA
Adolescent Trespasser	9.5E-08	NA	NA	2.0E-03	NA	NA

Note:
NA - Exposure pathway was not analyzed.

7.7 UNCERTAINTY ANALYSIS

This section presents a summary of uncertainties inherent in the SRE and includes a discussion of how they may affect the quantitative risk estimates and conclusions of the risk analysis. Many of the assumptions used to evaluate risk and model concentrations tend to overestimate exposure, thus minimizing the potential for underestimating potential risks.

Uncertainty in selection of chemicals for evaluation is related to the availability of data and data quality. Uncertainty associated with the exposure assessment includes the assumptions made to determine EPCs. Uncertainty in risk characterization is associated with exposure to multiple chemicals.

Uncertainty is associated with the use of the 95 percent UCL on the mean concentration as the EPC. As a result of using the 95 percent UCL, the estimations of potential risk were most likely overstated because this is a representation of the upper limit that potential receptors would be exposed to over the entire exposure period. Also, the use of the maximum concentration, when a 95 percent UCL could not be calculated, tends to overestimate risks because it is unlikely that a receptor could be exposed to the maximum concentration of every chemical.

Uncertainty in risk characterization resulted from assumptions made regarding additivity of effects from exposure to multiple COPCs via various exposure routes. High uncertainty exists when summing noncarcinogenic risks for several substances across different exposure pathways. This assumes that each substance has a similar effect and/or mode of action. Even when chemicals affect the same target organs, they may have different mechanisms of action or differ in their fate in the body; thus, additivity may not be an appropriate assumption in all cases. The assumption of additivity was considered because in most cases it represents a conservative estimate of risk. Also, the risk characterization did not consider antagonistic or synergistic effects. Little or no information is available to determine the potential for antagonism or synergism for the COPCs. Because chemical-specific interactions could not be predicted, the likelihood for risks being over- or under-predicted could not be defined.

The results of the vapor intrusion modeling are subject to the following sources of uncertainty:

- Use of the maximum groundwater concentrations to predict indoor air concentrations would overestimate potential risks associated with vapor intrusion.

- The Johnson and Ettinger model does not account for chemical transformation processes. The presence of various chlorinated hydrocarbons suggests that tetrachloroethene and trichloroethene are undergoing degradation.

- The model treats the hypothetical building as a single chamber with instantaneous and homogenous vapor dispersion. The model neglects contaminant sinks and room to room variation in vapor concentrations due to unbalanced mechanical and/or natural ventilation.

- The default building area of 10 meters (32.8 feet) by 10 meters is based on a Michigan study and corresponds to the 10^{th} percentile floor space area for residential single family dwellings. The slab on grade scenario assumes a single floor dwelling 2.44 meters (8 feet) high. The modeling results may be different for a building with different dimensions.

- Absence of seasonal or temporal data contributes to the uncertainty by not accounting for the variability in groundwater concentrations.

While most of the assumptions used to evaluate risk tend to overestimate exposure, overall it ensures that risks were not underestimated and tends to ensure protection of human health.

7.8 SUMMARY AND CONCLUSIONS

Risks for exposure to soil, groundwater, and inhalation of VOCs present in groundwater as a result of vapor intrusion at PSC 45 by hypothetical future residents were evaluated. In addition, risks associated with exposure to soil and vapor intrusion at PSC 45 by industrial workers and risks associated with exposure to soil by maintenance workers, construction workers, and adolescent trespassers were evaluated.

- Cumulative carcingenic risks for residential exposure to soil, groundwater, and inhalation of VOCs associated with vapor intrusion exceeded the USEPA's target risk range of 10^{-4} to 10^{-6} and the FDEP's target risk level of 10^{-6}. Cumulative noncarcinogenic risks for residential exposure to soil, groundwater, and inhalation of VOCs associated with vapor intrusion exceeded the USEPA's and the FDEP's target HI of 1.

- Carcinogenic risks for residential exposure to groundwater were greater than the USEPA's target risk range and the FDEP's target risk level. Noncarcinogenic risks for residential exposure to groundwater were greater than the USEPA's and the FDEP's target HI.

- Carcinogenic risks for residential exposure to soil were greater than the FDEP's target risk level, but were within the USEPA's target risk range. Noncarcinogenic risks for residential exposure to soil were less than the USEPA's and the FDEP's target HI.

- Carcinogenic risks for residential exposure to VOCs through vapor intrusion exceeded the FDEP's target risk level, but were within the USEPA's target risk range. The noncarcinogenic risks associated with vapor intrusion for the hypothetical resident were equal to the USEPA's and the FDEP's target HI.

- Carcinogenic risks for the industrial worker and the construction worker were within the USEPA's target risk range. Noncarcinogenic risks for the industrial woker were less than the USEPA's target HI.

- Carcinogenic and noncarcinogegnic risks for the maintenance worker and the adolescent trespasser were less than the USEPA's target risk range and target HI, respectively.

- Carcinogenic and noncarcinogenic risks for the industrial worker, maintenance worker, construction worker, and the adolescent trespasser were less than the FDEP's target risk level and HI, respectively.

Chemicals of concern (COCs) are those contaminants in a media of concern that contribute to risks greater than the USEPA's target risk range, the FDEP's target risk level, or the USEPA's and FDEP's target HQ of 1 in a specific medium of concern or are present at concentrations exceeding applicable or relevant and appropriate requirements, such as the MCL in groundwater. For PSC 45, a COC has a risk level in a medium of concern greater than a cancer risk level of 10^{-6} or a HI of 1.0 or it exceeds the MCL or GCTL.

- The COCs in groundwater (see Table 7-12) are manganese, TPH, cPAHs, benzo(a)anthracene, BAP, naphthalene, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, isopropylbenzene, tetrachloroethene, trichloroethene, vinyl chloride, and xylene.

- Ethylbenzene concentrations in groundwater correspond to risks greater than the USEPA or FDEP targets, but its maximum detected concentration was less than the USEPA MCL and FDEP GCTL. Ethylbenzene was retained as a COC.

- Vinyl chloride concentrations in groundwater also corresponded to risks greater than targets and its concentrations were less than the MCL or GCTL, but it is also a degradation product of tetrachloroethene and trichloroethene; therefore, it was retained as a COC.

- Manganese, isopropylbenzene, and xylene were present at concentrations exceeding the MCL or GCTL, but the corresponding risks were less than target risk levels. Because of their exceedance of the MCL or GCTL, they were retained as COCs.

TABLE 7-12

COCs IN GROUNDWATER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Contaminant	USEPA			FDEP			COC
	> 10^{-6} Cancer Risk	> 1 HQ	> MCL	> 10^{-6} Cancer Risk	> 1 HI	> GCTL	
Metals							
Manganese			Yes			Yes	Yes
Petroleum Hydrocarbons							
TPH			NA		x	Yes	Yes
PAHs							
cPAHs	x		NA	x		NA	Yes
BAP		x	No			No	Yes
Benzo(a)anthracene			NA		x	Yes	Yes
1-Methylnaphthalene			NA			No	No
Naphthalene	x	x	NA			Yes	Yes
VOCs							
1,1-Dichloroethane	x		NA			No	Yes
1,1-Dichloroethene		x	Yes		x	Yes	Yes
1,2-Dichloroethane	x	x	Yes	x		Yes	Yes
1,4-Dichlorobenzene	x		No			No	No
Benzene	x		No	x		Yes	Yes
cis-1,2-Dichloroethene			No			No	No
Ethylbenzene	x		No			No	Yes
Isopropylbenzene			NA			Yes	Yes
Tetrachloroethene	x		Yes	x		Yes	Yes
Trichloroethene	x	x	Yes	x	x	Yes	Yes
Vinyl Chloride	x		No	x		No	Yes
Xylene			No			Yes	Yes

The carcinogenic risk for residential exposure to soil exceeded the FDEP's target risk level. Based upon the calculated BAP equivalent values, the COCs for soil are the cPAHs.

The carcinogenic risk for vapor intrusion also exceeded the FDEP's target risk level. The COC in groundwater responsible for the vapor intrusion risk is trichloroethene. This analyte is also listed as a COC in groundwater.

8.0 ECOLOGICAL RISK ASSESSMENT

This ERA was conducted to evaluate potential risks to ecological receptors resulting from contamination associated with PSC 45. The ERA consisted of Steps 1 through 3A of USEPA's 8-step ERA process, and was conducted following USEPA and Navy guidance (USEPA, 1997 and 2001; Navy, 1999). Steps 1 through 3A consist of the following:

Step 1 Screening-Level Problem Formulation and Ecological Effects Evaluation
Step 2 Screening-Level Exposure Estimate and Risk Calculation
Step 3A Refinement of Preliminary COPCs

Section 8.1.1 describes the environmental setting at PSC 45. The contaminant source, migration pathways, and fate and transport characteristics are summarized in Section 8.1.2. The ecotoxicity of site contaminants and potential ecological receptors are described in Section 8.1.3. Section 8.1.4 describes complete exposure pathways, and Section 8.1.5 provides preliminary assessment and measurement endpoints. Sections 8.2, 8.3, and 8.4 describe the screening level ecological effects evaluation, exposure estimates, and risk calculation, respectively. Section 8.5 describes the refinement of preliminary COPCs. Uncertainties inherent in the ERA are discussed in Section 8.6. The summary and conclusions of the ERA are provided in Section 8.7.

8.1 SCREENING-LEVEL PROBLEM FORMULATION

8.1.1 Environmental Setting

PSC 45, the Building 200 Wash Rack Disposal Pit, is located at the northwestern corner of Building 200 in a heavily industrialized portion of NAS Jacksonville near the flightline. The site is surrounded by buildings and paved surfaces. With the exception of small areas of mowed grass at the edges of buildings and along roadsides, there is no ecological habitat in the vicinity of PSC 45.

The St. Johns River is located approximately 2,800 feet east of PSC 45. The river at NAS Jacksonville is approximately 2.5 miles wide. The salinity in this portion of the river fluctuates somewhat depending on rainfall and tidal conditions, but based on previous measurements of surface water salinity in the river at nearby OU 3, the salinity ranges from 7.0 to 8.8 ppt.

8.1.2 Contaminant Sources, Migration Pathways, Fate and Transport

The source of contamination at PSC 45 is the wash rack disposal pit. Ground support equipment was cleaned in the wash rack at the northwestern corner of Building 200, where solvents were used to strip

paint from the equipment. The disposal pit received overflow from an oil/water separator associated with the wash rack. The pit was a French drain design that leached directly into subsurface soil.

Contaminated media consist of deeper surface soil (0.5 to 2.0 feet bls) and groundwater. Soil erosion due to stormwater runoff and wind does not occur at PSC 45 due to the flat terrain and the soil cover of impervious material. Thus, overland transport of site-related contaminants in deeper surface soil is not a contaminant transport mechanism at the site. The contaminated deeper surface soil at PSC 45 does not provide a complete pathway for ecological receptors. The only significant contamination migration pathway for ecological receptors is the groundwater-to-surface water pathway.

As discussed in Sections 2.2.10 and 5.4 and in Appendix B, the surficial groundwater aquifer in the vicinity of PSC 45 is composed of distinct upper and intermediate layers. The upper layer extends from the ground surface to a depth of approximately 15 feet below msl, which at PSC 45 equates to approximately 30 feet bgs. The intermediate surficial layer extends from the bottom of the upper layer to the top of the Hawthorn Group. The flow of groundwater beneath Site 45 is influenced by the underground stormwater drainage system, but the flow is generally eastward toward the St. Johns River. Information from camera surveys and other sources indicate that groundwater in the upper layer of the surficial aquifer seeps into the stormwater drainage system through joints and cracks in the underground drainage pipes and, as a result, contaminated groundwater from PSC 45 seeps into the stormwater system. This contaminated groundwater then mixes with the water currently in the stormwater system and is conveyed approximately ½ a mile where the stormwater discharges into the St. Johns River.. The intermediate layer of the surficial aquifer lies beneath the stormwater drainage system; thus, groundwater in the intermediate layer does not enter the stormwater drainage pipes. Contaminated groundwater in the intermediate layer has not reached the river and is not expected to do so until approximately 80 years from now (see Section 5.4).

VOCs are the primary contaminants in groundwater at PSC 45. VOCs are poorly adsorbed to soil and sediment particles and are not typically detected at high concentrations in surface water, surface soil, and sediment because of their high volatility. VOCs in soil will dissolve in rain water to varying degrees and can be transported overland with runoff or into groundwater, but overland transport does not occur at PSC 45. Photolysis and hydrolysis are not significant mechanisms for VOC degradation. Aerobic biodegradation in soil and groundwater is significant, however, and anaerobic degradation can also occur in these media.

As noted in Section 5.3.3, the Phase II data from the areas to the north and northeast (DPT 14, DPT 21, DPT 13, DPT 22, and DPT 12) show that those results are distinctly different from the chemical profiles of other sampling locations at PSC 45. These results suggests that a secondary source of contamination,

originating somewhere immediately north of PSC 45, is likely to be responsible for impacts to groundwater detected during this investigation of PSC 45. Based on review of this information, the Partnering Team determined that additional investigation into this possible second source area should be conducted as a separate site and that further investigation of the area to the north and northeast of PSC 45 is not warranted as part of the PSC 45 RI. Therefore, the results from the groundwater samples collected from DPT 14, DPT 21, DPT 13, DPT 22, and DPT 12 are not incorporated into the ecological risk assessment.

8.1.3 Ecotoxicity and Potential Receptors

Even though most VOCs readily volatilize from soil and surface water, VOC contamination can be toxic to ecological receptors. Toxic effects from VOCs are due to their biotransformation within receptors. VOCs are known to be central nervous system toxins and can cause behavioral changes, impaired movement, and central nervous system depression. Some VOCs are hepatotoxic (toxic to the liver) (Hazardous Substances Data Bank, 2006). Nevertheless, VOC toxicity to ecological receptors is relatively low. VOCs do not generally bioaccumulate in ecological receptors. Potential receptors associated with PSC 45 consist of organisms in the St. Johns River, which are discussed in more detail below.

8.1.4 Potentially Complete Exposure Pathways

As mentioned in Section 8.1.2, contaminated groundwater, in the surficial upper layer, from PSC 45 seeps into the stormwater system where it mixes with water in the stormwater system. This water then is conveyed approximately ½ mile to a point where it discharges into the St. Johns River.. Fish and aquatic invertebrates in the river could be exposed to contaminants through ingestion and direct contact with surface water. However, there are no data on the concentration of the contaminates in the stormwater system; therefore, it is not known if these contaminants are being discharged into the St. Johns River.

Because of the close relationship between sediments and surface water, sediments can become contaminated as a result of surface water contamination. For example, surface water contaminants can be adsorbed onto particulate matter that becomes deposited in bottom sediments. This would result in benthic organisms (i.e., invertebrate organisms that live on or in sediment) being exposed to contaminants through ingestion of sediment and direct contact with sediment. While this cannot be totally ruled out in the areas where contaminated groundwater from PSC 45 discharges into the St. Johns River, VOCs, which are the primary contaminants in groundwater at PSC 45, are poorly adsorbed to sediment particles.

Higher trophic level animals such as birds and mammals forage in the St. Johns River and can be exposed to contaminants through three pathways: oral, dermal, and inhalation. The inhalation pathway is

insignificant because VOCs, which are the compounds most likely to present a risk through inhalation, are rapidly diluted and dispersed when exposed to air. The dermal pathway is generally assumed to be minor because fur and feathers minimize transfer across dermal tissue, and the oral exposure pathway is the primary pathway of intake of most contaminants for wildlife such as birds and mammals (Sample et al, 1997).

A complete exposure pathway has the following three components: (1) a source of contaminants that can be released to the environment, (2) a route of contaminant transport through an environmental medium, and (3) an exposure or contact point for an ecological receptor. The poor terrestrial habitat at PSC 45, the industrial nature of the area, the small size of the site, and the fact that site-related contamination is limited to subsurface soil and groundwater results in a terrestrial exposure pathway that is essentially incomplete at PSC 45. Therefore, the terrestrial exposure pathway was not evaluated further. Contaminated groundwater from PSC 45, however, discharges into the St. Johns River. In summary, complete exposure pathways and routes of entry into biota that were evaluated in this ecological risk assessment consist of direct contact with surface water and ingestion of surface water.

8.1.5 Preliminary Assessment and Measurement Endpoints

An assessment endpoint is “an explicit expression of the environmental value that is to be protected”, while a measurement endpoint is “a measurable ecological characteristic that is related to the valued characteristic chosen as the assessment endpoint” (USEPA, 1997). Measurement endpoints represent the assessment endpoints chosen for a site and are measures of biological effects (USEPA, 1997).

The USEPA Region 4 has specified that assessment endpoints for the screening-level assessment should be broad and generic. For the PSC 45 screening level assessment, the preliminary assessment endpoint is the protection of aquatic biota from adverse effects of chemicals on their growth, survival, and reproduction.

Adverse effects on aquatic biota were investigated by collecting and analyzing groundwater samples, and then comparing the groundwater data to ESVs for surface water. Thus, the preliminary measurement endpoints are represented by surface water ESVs.

The surface water ESVs are based on conservative endpoints and sensitive ecological effects data, and thus, the screening values represent chemical concentrations associated with a low probability of unacceptable risks to ecological receptors.

8.2 SCREENING-LEVEL ECOLOGICAL EFFECTS EVALUATION

The FDEP considers "predominately marine waters" to consist of surface waters in which the chloride concentration at the surface is greater than 1,500 mg/L per Chapter 62-302.200, F.A.C. Since most anions in seawater or brackish water are chloride ions, chloride can be determined from salinity concentration measurements. According to Weyl (Weyl, 1970), the following relationship exists in sea water between chlorinity (the weight fraction of chloride in water) and total salt content: salinity (in ppt) equals 0.00180655 times chlorinity (in mg/L). Thus, a chloride concentration of 1,500 mg/L equates to 2.7 ppt salinity. As mentioned in Section 8.1.1, the salinity in the St. Johns River at NAS Jacksonville ranges from 7.0 to 8.8 ppt; therefore, the St. Johns River at NAS Jacksonville is considered to be predominately marine. With this in mind, the groundwater data were compared to marine surface water ESVs.

The FDEP Class III Predominantly Marine Waters Criteria were used as the preferred choice for marine surface water ESVs (FDEP, 2012). As a second choice for ESVs (for chemicals without FDEP Class III Criteria), the USEPA Region 4 chronic saltwater screening values were used (USEPA, 2001). Marine chronic surface water screening values in Screening Quick Reference Tables derived for the NOAA by Buchman were used as a third choice for chemicals without ESVs from the two aforementioned sources (Buchman, 2008). The NOAA chronic values were created to be used as preliminary screening values for environmental concentrations of contaminants and were taken from numerous federal, state, and international regulatory agencies. The USEPA Region 3 marine surface water screening benchmarks (USEPA, 2006) were used for chemicals without ESVs from the three sources above.

If the maximum detected concentration of a chemical in groundwater was less than the ESV, the chemical was eliminated from further consideration. If the maximum concentration equaled or exceeded the ESV, or if a screening value was not available, the chemical was then considered to be an ecological COPC and was retained for further evaluation.

8.3 SCREENING-LEVEL EXPOSURE ESTIMATE

Analytical data from groundwater samples collected within the upper surficial groundwater layer were evaluated in the ERA. These samples were obtained from two shallow monitoring well samples and DPT samples collected from two depth intervals at each of seven DPT locations. The two shallow well samples were collected in May 2011 from a screened depth of 3 to 13 feet bgs. The DPT samples were collected in June 2011. The DPT data evaluated in the ERA consisted of samples collected at 12 to 16 feet bgs and at 20 to 24 feet bgs.

Note that for brevity, the sample identification nomenclature is abbreviated in the ERA. For example, the complete identification nomenclature for one of the two shallow monitoring well samples is JAX-45-B200-MW01S-20110504; JAX-45 identifies the sample as being from PSC 45 at NAS Jacksonville, B200 associates the sample with Building 200, MW01S signifies that the sample is from monitoring well number 1 and was collected from the shallow depth interval (3 to 13 feet bgs), and 20110504 identifies the date of sample collection. The ERA refers to this sample as MW01S. Similarly, DPT sample JAX-45-DPT19-12-06202011 is abbreviated as DPT19-12 in the ERA and indicates a DPT sample collected from location number 19 at a depth interval of 12 to 16 feet bgs. The DPT sample collected from the same location at the 20 to 24 foot depth interval would be abbreviated as DPT19-20.

8.4 SCREENING-LEVEL RISK CALCULATION

The screening level risk calculation step compared maximum concentrations of chemicals in groundwater to marine surface water ESVs. The ratio of the maximum concentration to the ESV is called the screening HQ. Analytes with maximum concentrations less than ESVs (HQ < 1) were dropped from further consideration, while those that equaled or exceeded ESVs (HQ $\geq$ 1), or did not have ESVs, were retained as ecological COPCs. An HQ value greater than 1 indicates that ecological receptors are potentially at risk, and further evaluation or additional data may be necessary to confirm with greater certainty whether ecological receptors are actually at risk. Chemicals that were retained as ecological COPCs were evaluated in Step 3A so that risk managers can determine if further investigation is warranted.

Calcium, magnesium, potassium, and sodium were not considered to be ecological COPCs because they are essential nutrients that can be tolerated by living systems even at relatively high concentrations. There have been no activities at PSC 45 that have resulted in known releases of high levels of these four chemicals at the site.

Maximum groundwater concentrations of three metals, one SVOC, three PAHs, and five VOCs exceeded their corresponding marine surface water ESVs, while marine surface water ESVs were not available for two SVOCs, one PAH, and six VOCs that were detected in groundwater (see Table 8-1).

Table 8-2 presents concentrations of all analytes that were detected in the two shallow monitoring well samples and in the DPT samples collected at 12 to 16 feet bgs and 20 to 24 feet bgs. Figure 8-1 presents concentrations of detected analytes that exceeded ESVs in each sample. The full groundwater data set is presented in Appendix E.

TABLE 8-1

DEVELOPMENT OF ECOLOGICAL COPCs IN THE UPPER LAYER OF THE SURFICIAL AQUIFER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Parameter	Frequency of Detection	Range of Detected Concentrations		Location of Maximum Concentration	Range of Nondetects		Average of All Results	Ecological Screening Value	Hazard Quotient[1]	COPC (Yes/No)
		Minimum Concentration	Maximum Concentration		Minimum Non-Detect	Maximum Non-Detect				
Inorganics (µg/L)										
ALUMINUM	2/2	58.7 J	251 J	JAX45-B200-MW01S			154.85	1500[2]	0.2	No
ARSENIC	2/2	1.7 J	8.2	JAX45-B200-MW02S			4.95	50[2]	0.2	No
BARIUM	2/2	20.3	32.8	JAX45-B200-MW02S			26.55	200[3]	0.2	No
CALCIUM	2/2	8420	96600	JAX45-B200-MW01S			52510.00	NA	NA	No
CHROMIUM	1/2	2.6 J	2.6 J	JAX45-B200-MW01S	0.36	0.36	1.39	50[2]	0.1	No
COBALT	2/2	0.39 J	8.7 J	JAX45-B200-MW02S			4.55	1[3]	8.7	Yes
COPPER	1/2	1.5 J	1.5 J	JAX45-B200-MW01S	0.63	0.63	0.91	3.7[2]	0.4	No
IRON	2/2	4860	19800	JAX45-B200-MW02S			12330.00	300[2]	66.0	Yes
LEAD	1/2	1.1 J	1.1 J	JAX45-B200-MW01S	1.07	1.07	0.82	8.5[2]	0.1	No
MAGNESIUM	2/2	2310	5850	JAX45-B200-MW01S			4080.00	NA	NA	No
MANGANESE	2/2	179	231	JAX45-B200-MW01S			205.00	100[3]	2.3	Yes
NICKEL	2/2	0.64 J	0.71 J	JAX45-B200-MW02S			0.68	8.3[2]	0.1	No
POTASSIUM	2/2	1410	5490	JAX45-B200-MW01S			3450.00	NA	NA	No
SILVER	1/2	0.43 J	0.43 J	JAX45-B200-MW02S	0.27	0.27	0.28	2.3[2]	0.2	No
SODIUM	2/2	8160	8520	JAX45-B200-MW01S			8340.00	NA	NA	No
VANADIUM	1/2	1.1 J	1.1 J	JAX45-B200-MW01S	0.23	0.23	0.61	50[3]	0.0	No
ZINC	2/2	11.6 J	11.7 J	JAX45-B200-MW01S			11.65	86[2]	0.1	No
Semivolatile Organic Compounds (µg/L)										
1,1-BIPHENYL	1/2	3.4 J	3.4 J	JAX45-B200-MW01S	2.6	2.6	2.35	NA	NA	Yes
2,4-DIMETHYLPHENOL	1/2	12	12	JAX45-B200-MW01S	4.2	4.2	7.05	NA	NA	Yes
DI-N-BUTYL PHTHALATE	1/2	4.1 J	4.1 J	JAX45-B200-MW01S	2.4	2.4	2.65	3.4[4]	1.2	Yes
Polynuclear Aromatic Hydrocarbons (µg/L)										
1-METHYLNAPHTHALENE	1/2	12	12	JAX45-B200-MW01S	0.065	0.065	6.02	NA	NA	Yes
2-METHYLNAPHTHALENE	1/2	9.3	9.3	JAX45-B200-MW01S	0.074	0.074	4.67	4.2[5]	2.2	Yes
ACENAPHTHENE	1/2	0.085 J	0.085 J	JAX45-B200-MW01S	0.062	0.062	0.06	2700[2]	3.1E-05	No
BENZO(A)ANTHRACENE	1/2	0.14 J	0.14 J	JAX45-B200-MW02S	0.047	0.047	0.08	0.031[2]	4.5	Yes
FLUORENE	1/2	0.081 J	0.081 J	JAX45-B200-MW01S	0.059	0.059	0.06	14000[2]	5.8E-06	No
NAPHTHALENE	1/2	52	52	JAX45-B200-MW01S	0.062	0.062	26.02	23.5[4]	2.2	Yes
Volatile Organic Compounds (µg/L)										
1,1-DICHLOROETHANE	1/14	56	56	JAX45-B200-MW02S	0.21	0.21	4.10	NA	NA	Yes
1,1-DICHLOROETHENE	2/14	3	750	JAX45-B200-MW02S	0.35	0.35	53.94	3.2[2]	234.4	Yes
1,2-DICHLOROBENZENE	1/14	8.6	8.6	JAX45-B200-MW01S	0.15	0.15	0.68	19.7[4]	0.4	No
1,2-DICHLOROETHANE	1/14	20	20	JAX45-B200-MW02S	0.2	0.2	1.52	1130[4]	1.8E-02	No
1,4-DICHLOROBENZENE	1/14	1.7	1.7	JAX45-B200-MW01S	0.24	0.24	0.23	19.9[4]	8.5E-02	No

TABLE 8-1

DEVELOPMENT OF ECOLOGICAL COPCs IN THE UPPER LAYER OF THE SURFICIAL AQUIFER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA
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Parameter	Frequency of Detection	Range of Detected Concentrations		Location of Maximum Concentration	Range of Nondetects		Average of All Results	Ecological Screening Value	Hazard Quotient[1]	COPC (Yes/No)
		Minimum Concentration	Maximum Concentration		Minimum Non-Detect	Maximum Non-Detect				
ACETONE	3/14	2.7 J	4.2 J	JAX45-DPT18	2.2	5.7	1.85	564000[5]	7.4E-06	No
BENZENE	2/14	0.34 J	1.1	JAX45-B200-MW02S	0.26	0.26	0.21	71.28[2]	1.5E-02	No
CARBON DISULFIDE	9/14	0.32 J	1.9	JAX45-DPT18	0.25	0.25	0.47	NA	NA	Yes
CHLOROMETHANE	5/14	0.4 J	0.77 J	JAX45-DPT19	0.36	0.36	0.31	470.8[2]	1.6E-03	No
CIS-1,2-DICHLOROETHENE	3/14	0.24 J	13	JAX45-B200-MW01S	0.21	0.21	1.19	680[5, 6]	1.9E-02	No
CYCLOHEXANE	1/14	1.6	1.6	JAX45-B200-MW01S	0.31	0.31	0.26	NA	NA	Yes
ETHYLBENZENE	1/14	10	10	JAX45-B200-MW01S	0.21	0.21	0.81	4.3[4]	2.3	Yes
ISOPROPYLBENZENE	1/14	3.5	3.5	JAX45-B200-MW01S	0.23	0.23	0.36	NA	NA	Yes
METHYL CYCLOHEXANE	1/14	3.4	3.4	JAX45-B200-MW01S	0.3	0.3	0.38	NA	NA	Yes
TETRACHLOROETHENE	1/14	16	16	JAX45-B200-MW01S	0.4	0.4	1.33	8.85[2]	1.8	Yes
TOLUENE	2/14	0.36 J	24	JAX45-B200-MW01S	0.27	0.27	1.86	37[4]	0.6	No
TOTAL XYLENES	1/14	44	44	JAX45-B200-MW01S	0.25	0.25	3.26	19[5]	2.3	Yes
TRICHLOROETHENE	6/14	0.33 J	390	JAX45-B200-MW02S	0.28	0.28	28.87	80.7[2]	4.8	Yes
VINYL CHLORIDE	1/14	0.7 J	0.7 J	JAX45-B200-MW02S	0.25	0.25	0.17	NA	NA	Yes

Notes:

(1) Hazard quotient = maximum detected concentration ÷ ecological screening value.

(2) Florida Chronic Class III Surface Water Criteria for marine water; FAC 62-302.530 (FDEP, 2010).

(3) NOAA marine surface water chronic values (Buchman, 2008).

(4) USEPA Region 4 chronic saltwater screening values (USEPA, 2001).

(5) USEPA Region 3 marine surface water screening benchmarks (USEPA, 2006).

(6) Screening value for total 1,2-dichloroethene.

NA: Ecological screening value not available.

TABLE 8-2

COMPARISON OF ESVs TO DETECTED ANALYTE CONCENTRATIONS FROM SAMPLES COLLECTED IN THE UPPER LAYER OF THE SURFICIAL AQUIFER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	ESV	JAX45-B200-MW01S	JAX45-B200-MW02S	JAX45-DPT15		JAX45-DPT16
SAMPLE IDENTIFICATION		JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02S-20110504	JAX-45-DPT15-12-06202111	JAX-45-DPT15-20-06202111	JAX-45-DPT16-12-06202111
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
METALS (µg/L)						
ALUMINUM	1500	251 J	58.7 J	NA	NA	NA
ARSENIC	50	1.7 J	8.2	NA	NA	NA
BARIUM	200	20.3	32.8	NA	NA	NA
CALCIUM	NC	96600	8420	NA	NA	NA
CHROMIUM	50	2.6 J	0.36 U	NA	NA	NA
COBALT	1	0.39 J	**8.7 J**	NA	NA	NA
COPPER	3.7	1.5 J	0.63 U	NA	NA	NA
IRON	300	**4860**	**19800**	NA	NA	NA
LEAD	8.5	1.1 J	1.07 U	NA	NA	NA
MAGNESIUM	NC	5850	2310	NA	NA	NA
MANGANESE	100	**231**	**179**	NA	NA	NA
NICKEL	8.3	0.64 J	0.71 J	NA	NA	NA
POTASSIUM	NC	5490	1410	NA	NA	NA
SILVER	2.3	0.27 U	0.43 J	NA	NA	NA
SODIUM	NC	8520	8160	NA	NA	NA
VANADIUM	50	1.1 J	0.23 U	NA	NA	NA
ZINC	86	11.7 J	11.6 J	NA	NA	NA
POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						
1-METHYLNAPHTHALENE	NC	12	0.065 U	NA	NA	NA
2-METHYLNAPHTHALENE	4.2	**9.3**	0.074 U	NA	NA	NA
ACENAPHTHENE	2700	0.085 J	0.062 U	NA	NA	NA
BENZO(A)ANTHRACENE	0.031	0.047 U	**0.14 J**	NA	NA	NA
FLUORENE	14000	0.081 J	0.059 U	NA	NA	NA
NAPHTHALENE	23.5	**52**	0.062 U	NA	NA	NA
SEMIVOLATILES (µg/L)						
1,1-BIPHENYL	NC	3.4 J	2.6 U	NA	NA	NA
2,4-DIMETHYLPHENOL	NC	12	4.2 U	NA	NA	NA
DI-N-BUTYL PHTHALATE	3.4	**4.1 J**	2.4 U	NA	NA	NA
VOLATILES (µg/L)						
1,1,2-TRICHLOROETHANE	550	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NC	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	NC	0.21 U	56	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	3.2	0.35 U	**750**	0.35 U	0.35 U	0.35 U
1,2-DICHLOROBENZENE	19.7	8.6	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	1130	0.2 U	20	0.2 U	0.2 U	0.2 U
1,4-DICHLOROBENZENE	19.9	1.7	0.24 U	0.24 U	0.24 U	0.24 U
ACETONE	564000	2.2 U	2.2 U	2.2 UJ	2.2 UJ	2.7 J
BENZENE	71.28	0.34 J	1.1	0.26 U	0.26 U	0.26 U
CARBON DISULFIDE	NC	0.25 U	0.25 U	0.25 U	0.65 J	0.25 U
CARBON TETRACHLORIDE	4.42	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROFORM	470.8	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U

TABLE 8-2

COMPARISON OF ESVs TO DETECTED ANALYTE CONCENTRATIONS FROM SAMPLES COLLECTED IN THE UPPER LAYER OF THE SURFICIAL AOUIFER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	ESV	JAX45-B200-MW01S	JAX45-B200-MW02S	JAX45-DPT15		JAX45-DPT16
SAMPLE IDENTIFICATION		JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02S-20110504	JAX-45-DPT15-12-06202111	JAX-45-DPT15-20-06202111	JAX-45-DPT16-12-06202111
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
CHLOROMETHANE	470.8	0.36 U	0.36 U	0.36 U	0.46 J	0.4 J
CIS-1,2-DICHLOROETHENE	680	13	2.2	0.21 U	0.21 U	0.21 U
CYCLOHEXANE	NC	1.6	0.31 U	0.31 U	0.31 U	0.31 U
ETHYLBENZENE	4.3	**10**	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	NC	3.5	0.23 U	0.23 U	0.23 U	0.23 U
METHYL CYCLOHEXANE	NC	3.4	0.3 U	0.3 U	0.3 U	0.3 U
METHYLENE CHLORIDE	1580	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	8.85	**16**	0.4 U	0.4 U	0.4 U	0.4 U
TOLUENE	37	24	0.36 J	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	**44**	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	680	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROETHENE	80.7	2.3	**390**	0.28 U	0.28 U	0.28 U
VINYL CHLORIDE	NC	0.25 U	0.7 J	0.25 U	0.25 U	0.25 U

TABLE 8-2

COMPARISON OF ESVs TO DETECTED ANALYTE CONCENTRATIONS FROM SAMPLES COLLECTED IN THE UPPER LAYER OF THE SURFICIAL AQUIFER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	ESV	JAX45-DPT16	JAX45-DPT17		JAX45-DPT18		JAX45-DPT19		JAX45-DPT20	
SAMPLE IDENTIFICATION		JAX-45-DPT16-20-06202111	JAX-45-DPT17-12-06202111	JAX-45-DPT17-20-06202111	JAX-45-DPT18-12-06202111	JAX-45-DPT18-20-06202111	JAX-45-DPT19-12-06222011	JAX-45-DPT19-20-06222011	JAX-45-DPT20-12-06222011	JAX-45-DPT20-20-06222011
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
METALS (µg/L)										
ALUMINUM	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
IRON	300	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	8.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	8.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	86	NA	NA	NA	NA	NA	NA	NA	NA	NA
POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)										
1-METHYLNAPHTHALENE	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	2700	NA	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.031	NA	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	14000	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	23.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (µg/L)										
1,1-BIPHENYL	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYL PHTHALATE	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILES (µg/L)										
1,1,2-TRICHLOROETHANE	550	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NC	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 UJ	0.31 U
1,1-DICHLOROETHANE	NC	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	3.2	0.35 U	0.35 U	3	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-DICHLOROBENZENE	19.7	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	1130	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,4-DICHLOROBENZENE	19.9	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
ACETONE	564000	2.2 UJ	2.2 UJ	2.2 UJ	4.2 J	3.2 J	3.3 U	3.1 U	4.1 U	5.7 U
BENZENE	71.28	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CARBON DISULFIDE	NC	0.54 J	0.78 J	0.44 J	1.9	0.32 J	0.33 J	0.6 J	0.25 UJ	0.4 J
CARBON TETRACHLORIDE	4.42	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROFORM	470.8	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U

TABLE 8-2

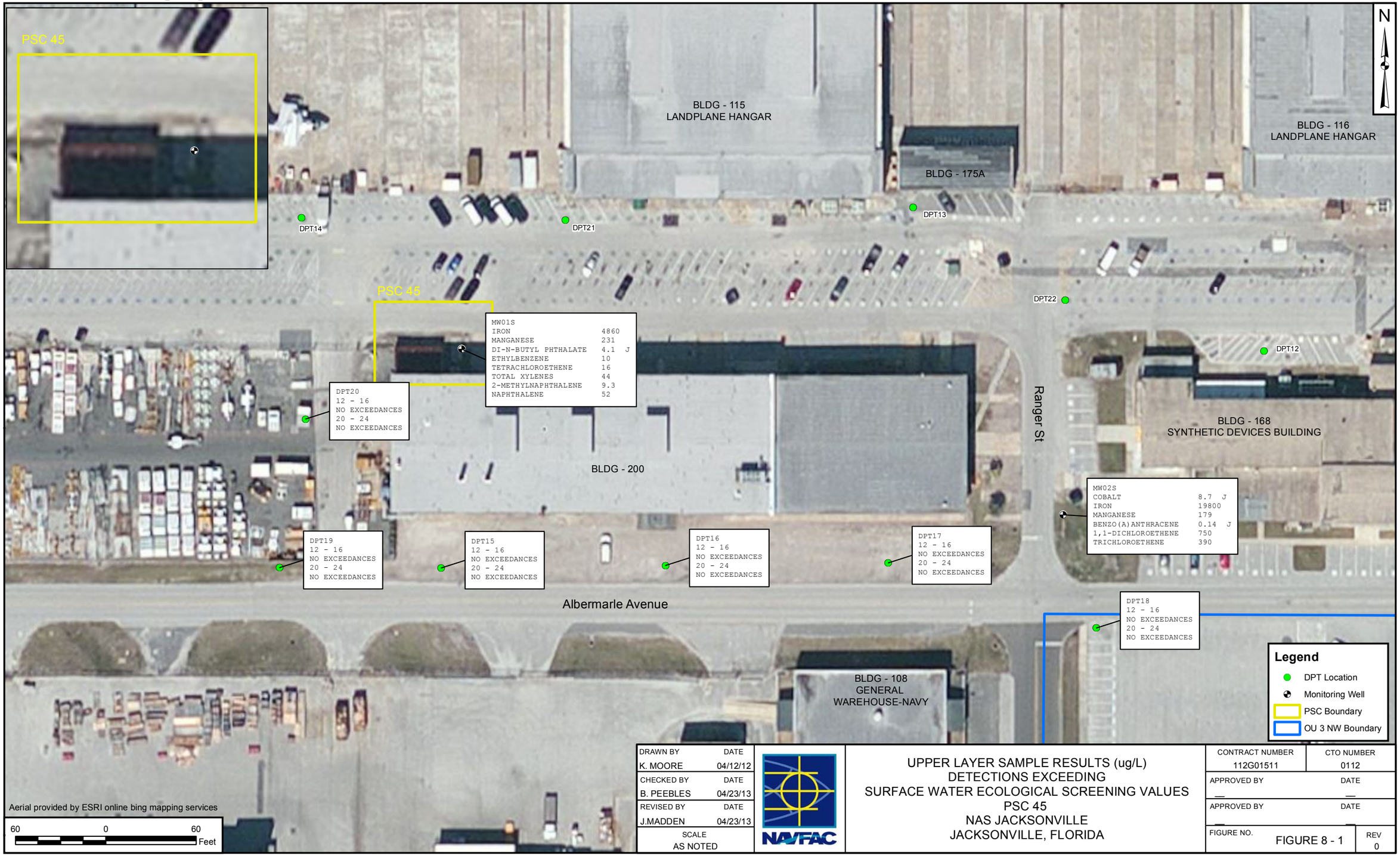
COMPARISON OF ESVs TO DETECTED ANALYTE CONCENTRATIONS FROM SAMPLES COLLECTED IN THE UPPER LAYER OF THE SURFICIAL AQUIFER
REMEDIAL INVESTIGATION REPORT, PSC 45
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

LOCATION	ESV	JAX45-DPT16	JAX45-DPT17		JAX45-DPT18		JAX45-DPT19		JAX45-DPT20	
SAMPLE IDENTIFICATION		JAX-45-DPT16-20-06202111	JAX-45-DPT17-12-06202111	JAX-45-DPT17-20-06202111	JAX-45-DPT18-12-06202111	JAX-45-DPT18-20-06202111	JAX-45-DPT19-12-06222011	JAX-45-DPT19-20-06222011	JAX-45-DPT20-12-06222011	JAX-45-DPT20-20-06222011
SAMPLE CODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
CHLOROMETHANE	470.8	0.36 U	0.36 U	0.36 U	0.36 U	0.48 J	0.36 U	0.77 J	0.65 J	0.36 U
CIS-1,2-DICHLOROETHENE	680	0.21 U	0.21 U	0.21 U	0.21 U	0.24 J	0.21 U	0.21 U	0.21 U	0.21 U
CYCLOHEXANE	NC	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 UJ	0.31 UJ	0.31 UJ
ETHYLBENZENE	4.3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	NC	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
METHYL CYCLOHEXANE	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 UJ	0.3 U
METHYLENE CHLORIDE	1580	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
TETRACHLOROETHENE	8.85	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
TOLUENE	37	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	680	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRICHLOROETHENE	80.7	0.33 J	0.71 J	8	0.28 U	1.7	0.28 U	0.28 U	0.28 U	0.28 U
VINYL CHLORIDE	NC	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Notes:
NC - Ecolocical screening value not available.
NA - The sample was not analyzed for this chemcal.
J - estimated value
U - non detect

ESC - Ecological Screening Value
µg/L - micrograms per liter

Shaded concentrations exceed ecological screening value.



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UPPER LAYER SAMPLE RESULTS (ug/L)
DETECTIONS EXCEEDING
SURFACE WATER ECOLOGICAL SCREENING VALUES
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
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FIGURE NO. FIGURE 8 - 1	REV 0

8.5 REFINEMENT OF PRELIMINARY CHEMICALS OF POTENTIAL CONCERN

At this point, the first two steps of the ERA have been completed. Since the screening level ERA for PSC 45 indicates a potential for adverse effects, a more thorough assessment is warranted. Therefore, the risk assessment process will proceed into Step 3 (Baseline Risk Assessment Problem Formulation).

8.5.1 General Approach

The baseline ERA begins with a more balanced evaluation of the conservativeness inherent in the first two steps of the risk assessment process (USEPA, 1997; Navy, 1999). The initial phase of Step 3 is typically known as Step 3A and consists of a refinement of the conservative exposure assumptions in order to more realistically estimate potential risks to ecological receptors. Examples of factors typically considered during Step 3A include toxicological evaluation of ecological COPCs, spatial distribution of contaminants, frequency of detection, background concentrations, and habitat quality (USEPA, 1997; Navy, 1999). Furthermore, the preliminary assessment and measurement endpoints are refined, the site conceptual exposure model is developed, and initial food chain modeling is conducted (at sites where applicable) to evaluate risks to upper level receptors. The objective of the ecological COPCs refinement is to assist the risk managers in refining the list of ecological COPCs so that a decision regarding further assessment or no further action can be made. Potential ecological risks are evaluated using a weight-of-evidence approach in accordance with USEPA 1997 guidance, and uncertainties are discussed where applicable.

The remainder of Section 8.5 discusses the refinement of the assessment and measurement endpoints (Section 8.5.2), the resulting conceptual model (Section 8.5.3), and the results of the screening level assessment and Step 3A considerations (Section 8.5.4).

8.5.2 Assessment and Measurement Endpoints

Although Section 8.1.4 indicated that upper trophic level animals such as birds and mammals could be exposed to site-related contaminants through the oral exposure pathway, this appears to be insignificant for PSC 45 for two reasons. First, surface water in the St. Johns River at NAS Jacksonville is brackish and would not be a significant source of drinking water. Second, site contaminants in PSC 45 groundwater (see Table 8-1) that are ecological COPCs are not chemicals that are known to bioaccumulate or biomagnify. The USEPA Region 4 considers chemicals in this category to be those in Table 4-2 of *Bioaccumulation Testing and Interpretation for the Purpose of Sediment Quality Assessment, Status and Needs* (USEPA, 2000). Although some chemicals that can bioaccumulate or biomagnify (such as lead and nickel) were detected in PSC 45 groundwater, their concentrations were less than their respective ESVs. Ecological COPCs are indicated in Table 8-1 by a “Yes” in the Ecological COPC column. None of the ecological COPCs indicated in Table 8-1 (with the exception of benzo(a)anthracene)

is a chemical known to bioaccumulate or biomagnify. Benzo(a)anthracene is included in Table 4-2 of the 2000 USEPA document, but the USEPA Region 4 does not consider PAHs to significantly bioaccumulate unless they are present at percent levels in soil or sediment. The concentration of 0.14 µg/L for benzo(a)anthracene in one groundwater sample does not suggest this compound would be elevated in sediment. Because the ecological COPCs at PSC 45 do not bioaccumulate or biomagnify, the exposure of upper trophic level animals such as birds and mammals to these chemicals in food items is not significant for PSC 45, and potential risks to these receptors via the food chain were not evaluated further.

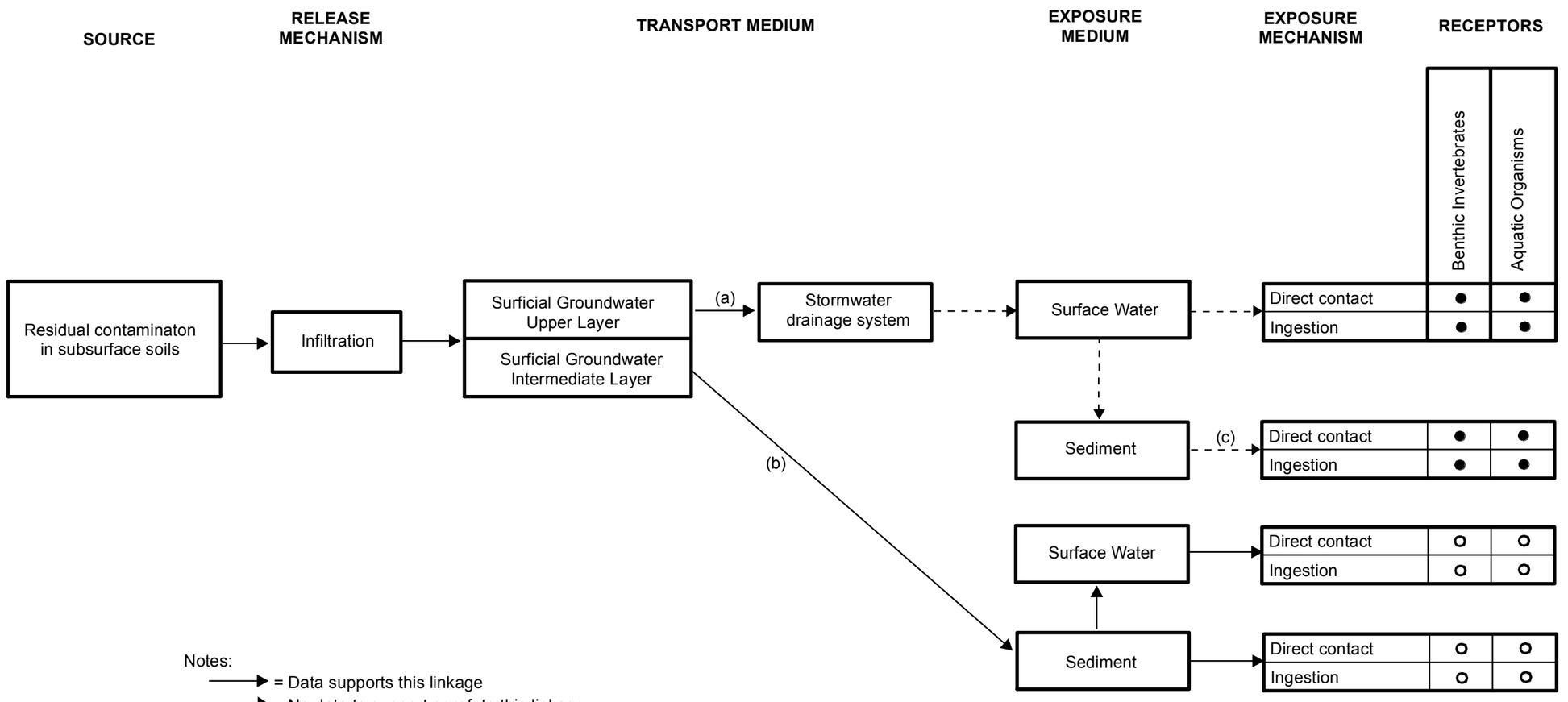
Based on the habitats present and on the migration pathways and routes of exposure of chemicals at PSC 45, the site-specific assessment endpoints are the protection of aquatic organisms from adverse effects of site-related contaminants on growth, survival, and reproduction.

Measurement endpoints for aquatic organisms in Step 3A of the baseline ERA are the same as those in the screening level assessment: chemical concentrations in surface water that are associated with adverse effects on growth, survival, and reproduction of aquatic organisms. The measurement endpoints are represented by ESVs for surface water.

8.5.3 Conceptual Exposure Model

The site conceptual exposure model is designed to diagram the potentially exposed receptor populations and applicable exposure pathways based on the physical nature of the site and the potential contaminant source areas. The contaminant transport pathways for PSC 45 are shown schematically on Figure 8-2.

These pathways describe the potential movement from sources of contamination to potential ecological receptors; the linkage of these items is the conceptual exposure model. Figure 8-2 indicates that benthic and aquatic organisms have the potential to be exposed to (a) contamination in surface water and (b) sediment resulting from the stormwater drainage system and the groundwater to surface water to sediment pathway. As noted elsewhere in this report, groundwater from the surficial layer seeps into the stormwater system where it mixes with water in the stormwater system. This water then is conveyed approximately ½ mile to a point where it discharges into the St. Johns River. Fish and aquatic invertebrates in the river could be exposed to contaminants through ingestion and direct contact with surface water. However, there are no data on the concentration of the contaminants in the stormwater system; therefore, it is not known if these contaminants are being discharged into the St. Johns River. Figure 8-2 also indicates that benthic and aquatic organisms have the potential to be exposed to contamination in sediment resulting from the groundwater (in the intermediate surficial groundwater layer) to surface water to sediment pathway. VOCs, which are the primary contaminants in groundwater at PSC 45, are poorly adsorbed to sediment particles. Therefore, although sediment contamination cannot



Notes:

→ = Data supports this linkage

- - - → = No data to support or refute this linkage

● = Potentially complete exposure pathway

O = Incomplete exposure pathway

(a) Groundwater in the upper upper layer seeps into the underground stormwater drainage system via cracks and joints (see text).

(b) It will be approximately 80 years before groundwater in the intermediate surficial layer seeps into the St. Johns River (see text), so the pathway is incomplete at present.

(c) Due to the chemical characteristics of the COPCs at PSC 45, this pathway (although technically complete) is probably not significant (see text).

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ECOLOGICAL CONCEPTUAL EXPOSURE MODEL
PSC 45
NAS JACKSONVILLE
JACKSONVILLE, FLORIDA

CONTRACT NUMBER	CTO NUMBER
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FIGURE NO.	REV
FIGURE 8 - 2	0

be totally ruled out, it is probably a minor exposure mechanism in areas where contaminated groundwater from PSC 45 discharges into the St. Johns River.

Based on information presented in Section 5.4 regarding groundwater flow data, groundwater in the intermediate surficial layer has not reached the St. Johns River and will not do so for approximately 80 years. Therefore, exposure by ecological receptors to contaminated groundwater in the intermediate surficial layer is shown as incomplete on Figure 8-2, and no further evaluation of risk to ecological receptors, associated with the intermediate surficial layer transport medium will be conducted.

8.5.4 Step 3A Risk Characterization and Discussion

The two shallow monitoring well samples (MW01S and MW02S) collected in May 2011 were analyzed for VOCs, SVOCs (including low level PAHs), PCBs, and metals (Phase I sampling, see Section 4.1). After a review of the Phase I groundwater data, the Partnering Team concluded that Phase II samples would be analyzed for VOCs, but not for SVOCs (including low level PAHs), PCBs, or metals. Thus, the frequency of detection for VOCs in Table 8-1 indicates that 14 samples were analyzed (DPT samples from two depths at each of six locations plus two monitoring well samples equals 14 total samples), while the frequency of detection for SVOCs, PAHs, and metals indicates that only two samples were analyzed for these classes of chemicals. No PCBs were detected in any groundwater samples. With this in mind, the three SVOCs, four PAHs, and three metals shown as ecological COPCs in groundwater (see Table 8-1) represent a data set of only two samples (monitoring wells MW01S and MW02S). There is uncertainty associated with evaluating potential ecological risk using a data set of only two samples. Overall, however, the data from the two monitoring wells indicate minor ecological risks. The HQs for SVOCs, PAHs, and metals are not particularly high, except for iron, which had a maximum HQ of 66 (see Table 8-1).

Iron concentrations in the two monitoring well samples were 4,860 µg/L and 19,800 µg/L, compared to an ESV of 300 µg/L (see Table 8-2). The ESV for iron in marine surface water was taken from Chapter 62-302.530, F.A.C. (FDEP, 2012) and was obtained by the FDEP from the “Blue Book” generated by the National Academy of Sciences for the USEPA in 1972. The derivation of 300 µg/L as a recommended value for protection of marine aquatic life is unclear, and subsequent USEPA water quality documents no longer support it. There are currently no national recommended water quality criteria for iron in marine surface water, and the USEPA Regions 3 and 4 do not have an ESV for iron in marine surface water. Buchman provides a chronic marine surface water ESV for iron of 50 µg/L, which is a British Columbia water quality guideline (Buchman, 2008). Regardless of the elevated HQ for iron and the uncertainty associated with the ESV, iron concentrations in groundwater at PSC 45 were considerably less than background concentrations of iron in groundwater at NAS Jacksonville (see Table 4-6 of Appendix D). Therefore, the iron concentrations in PSC 45 groundwater are indicative of basewide

conditions instead of former operations at the Wash Rack Disposal Pit. Similarly, cobalt concentrations in groundwater at PSC 45 were less than background concentrations of cobalt in groundwater at NAS Jacksonville, and the maximum manganese concentration in groundwater (231 µg/L, Table 8-1) only slightly exceeded the background screening concentration of 204 µg/L (see Table 4-6 of Appendix D).

Marine surface water ESVs were not available for six VOCs that were detected in groundwater (see Table 8-1). The absence of marine surface water ESVs precludes an evaluation of their potential toxicity to aquatic organisms in the St. Johns River. Four of the six detected VOCs without ESVs (1,1-dichloroethane, cyclohexane, isopropylbenzene, and methyl cyclohexane) were detected in only 1 of 14 samples, however.

Maximum groundwater concentrations of five VOCs exceeded their corresponding marine surface water ESVs. Concentrations of five of these five compounds exceeded their ESVs in only 1 of 14 samples (see Table 8-2). Specifically, concentrations of ethylbenzene, tetrachloroethene, and total xylenes exceeded their ESVs only in monitoring well MW01S, concentrations of 1,1-dichloroethene and trichloroethene exceeded their ESV only in monitoring well MW02S.

Maximum HQs were not particularly high for ethylbenzene (HQ of 2.3), tetrachloroethene (HQ of 1.8), total xylenes (HQ of 2.3), and trichloroethene (HQ of 4.8).

The average concentration is often appropriate in determining the extent to which an ecological COPC actually poses ecological risks. The average groundwater concentrations of ethylbenzene, tetrachloroethene, total xylenes, and trichloroethene were less than their corresponding ESVs (see Table 8-1). The first possible exposure point for ecological receptors is the point where groundwater discharges into surface water in the St. Johns River. This point of discharge is over 2,800 feet east of PSC 45. It is reasonable to assume that concentrations of the above COPCs at the point of discharge will be less than the average groundwater concentrations associated with PSC 45.

Ethylbenzene, tetrachloroethene, total xylenes, and trichloroethene exceeded their ESVs in only 1 of 14 samples. The maximum HQs, for these analytes, were relatively low, and their average concentrations were less than ESVs. Therefore, these four compounds in groundwater probably pose minimal risks to ecological receptors in the St. Johns River.

The results of the ERA indicate that one analyte (1,1-dichloroethene) was detected once in an upper surficial groundwater sample at a concentration (750 µg/L) that exceeded the FDEP's surface water ESV of 3.2 µg/L, but not the USEPA Region 4 surface water ESV of 2,240 µg/L (see Table 8-2 and Figure 8-1). The comparison of the average 1,1-dichloroethene concentration against either surface water EVA is

based upon the assumption that groundwater containing 1,1-dichloroethene seeps into the storm sewer and the concentration does not change during the ½ mile transport from the point of seepage to the point of discharge. Therefore, it is premature to conclude that 1,1-dichloroethene is presenting a risks to aquatic receptors, as there are no data on the range of concentration of 1,1-dichloroethene in the storm sewer and all the groundwater concentrations of 1,1-dichloroethene were less than the USEPA Region 4 ESV.

In summary, the groundwater concentrations of 1,1-dichloroethene suggest a potential risk to aquatic receptors in the St. Johns River based on the FDEP surface water ESV. Based on the USEPA Region 4 ESV, groundwater concentrations of this compound do not pose risks to aquatic receptors. The NAS Jacksonville Partnering Team determined that an additional downgradient well would be added and another round of groundwater monitoring would be conducted to evaluate if there is potential for impact to the storm sewer. The additional data collected from the newly installed and previously existing wells will be incorporated into the FS for PSC 45. Furthermore, the storm sewer that is receiving groundwater associated with PSC 45 is part of the OU 3 storm sewer system, which is currently being evaluated as part of the OU 3 RI/FS Addendum effort. An evaluation of potential corrective measures related to the storm sewer pathway based on the potential for risks posed to human health and ecological receptors related to the St. Johns River will be addressed under that separate effort.

8.6 UNCERTAINTY

Uncertainty is associated with all aspects of the ecological assessment methodology presented in the preceding sections. Some uncertainties were discussed in Section 8.5.4. This section provides a summary of the uncertainties and focuses on those that have not been previously discussed.

The use of groundwater data from PSC 45 to evaluate potential risks to ecological receptors in the St. Johns River creates uncertainty. For example, groundwater that enters underground stormwater drainage pipes through cracks in the pipes is undoubtedly mixed with water from rainfall runoff and numerous anthropogenic sources at the base; thus, the concentration 1,1-dichloroethene at the point of discharge into the river is probably considerably less than concentrations beneath PSC 45. Furthermore, VOCs that are the primary ecological COPCs at PSC 45 are volatile, so their expected concentrations in the stormwater sewer and in the surface water in the river, following discharge from the stormwater sewer, are uncertain. In addition, the mixing of contaminated groundwater with surface water in the river will result in dilution, the extent of which is unknown. Even if surface water and sediment data were available from the area within which groundwater discharges into the river, there would be uncertainty associated with the source of any measured contaminants due to groundwater contamination from nearby OU 3 and other sources.

Aquatic toxicity data are sparse for some chemicals detected in groundwater at PSC 45, and ESVs for a given chemical sometimes differ considerably among regulatory agencies. For example, the FDEP ESV for 1,1-dichloroethene is 3.2 µg/L (FDEP, 2012), but the USEPA Region 4 ESV for the same compound is 2,240 µg/L (USEPA, 2001).

Marine surface water ESVs were not available for seven VOCs that were detected in groundwater. The absence of ESVs precludes an evaluation of their potential toxicity to aquatic organisms in the St. Johns River. However, four of the seven detected VOCs without ESVs were detected in only 1 of 24 samples; the infrequent detections suggest that potential risks associated with these compounds are probably minor.

8.7 SUMMARY AND CONCLUSIONS

Previous operations at the Building 200 Wash Rack Disposal Pit have resulted in the contamination of subsurface soil and groundwater. The urban/industrial nature of the area surrounding PSC 45, and the fact that site-related contamination is limited to subsurface soil and groundwater, results in a terrestrial exposure pathway that is incomplete at the site.

The surficial groundwater layer in the vicinity of PSC 45 consists of distinct upper and intermediate layers. The upper layer extends from the ground surface to a depth of approximately 30 feet bgs. Groundwater in the upper layer of the surficial aquifer seeps into the stormwater drainage system through joints and cracks in underground drainage pipes, which then cross OU 3 prior to discharge into the St Johns River.

OU 3 is currently undergoing a RI that includes an extensive evaluation of the storm sewer system from impacts from multiple chlorinated solvent groundwater plumes located across OU 3. This evaluation includes direct monitoring data collected from the storm sewers, outfalls, and sediment pore water in the St. Johns River. This evaluation is a more thorough evaluation of potential risks, if any posed by contaminated groundwater infiltration into the storm sewer system. As a result, any risk posed to the storm sewer system from PSC 45 will likely be mitigated by any eventual remedy outcomes related to the storm sewers at OU 3.

Analytical data from groundwater samples collected within the upper surficial groundwater layer were evaluated in the ERA. The data represent samples collected from two shallow (3 to 13 feet bgs) monitoring wells and DPT samples collected from two depth intervals (12 to 16 and 20 to 24 feet bgs) at each of the six locations. The groundwater data were compared to marine surface water ESVs preferentially obtained from Chapter 62-302.530, F.A.C., *Criteria for Surface Water Quality Classifications* (Class III, Predominantly Marine) (FDEP, 2012). Other sources of ESVs were used for detected analytes without criteria in Chapter 62-302.530, F.A.C.

Only two shallow groundwater samples were analyzed for SVOCs, PAHs, PCBs, and metals, so there is some uncertainty associated with the evaluation of potential ecological risks using this small data set. Overall, the data from the two samples does not indicate a significant potential for site-related ecological risks.

The data set for VOCs consisted of 14 samples from eight locations. Maximum groundwater concentrations of five VOCs exceeded their corresponding surface water ESVs, and ESVs were not available for six VOCs detected in groundwater. VOCs tended to be either infrequently detected, had relatively low HQs, and/or their average concentrations were less than ESVs. With the possible exception of 1,1-dichloroethene, the data indicate that VOCs in groundwater from PSC 45 pose minimal risks to ecological receptors in the St. Johns River.

In summary, the groundwater concentrations of 1,1-dichloroethene suggest a potential risk to aquatic receptors in the St. Johns River based on the FDEP surface water ESV. Based on the USEPA Region 4 ESV, groundwater concentrations of this compound do not pose risks to aquatic receptors. The NAS Jacksonville Team determined that an additional downgradient well would be added and another round of groundwater monitoring would be conducted to evaluate if there is potential for impact to the storm sewer. The additional data collected from the newly installed and previously existing wells will be incorporated into the Feasibility Study for PSC 45. Furthermore the storm sewer, that is receiving groundwater associated with PSC 45, is part of the OU 3 storm sewer system which is currently being evaluated as part of the OU 3 RIFS Addendum effort. An evaluation of potential corrective measures related to the storm sewer pathway based on the potential for risks posed to human health and ecological receptors related to the St. Johns River will be addressed under that separate effort.

9.0 SUMMARY AND CONCLUSIONS

The purpose of the RI at PSC 45 was to develop data that enables the Partnering Team to (a) determine the nature and extent of contamination at PSC 45; (b) evaluate human health risks through a HHRA; (c) evaluate risk to ecological receptors through an ERA; and (d) determine the follow-up activities that may be required in subsequent remedial activities.

The field work was conducted in two phases. Phase I was initiated in April 2011, and Phase II was initiated in June 2011. In Phase I, four groundwater wells were installed and sampled for a broad range of analytes (i.e., TAL metals, TCL PCBs, TPH, TCL SVOCs (including low level PAHs), and TCL VOCs). After reviewing the results of the Phase I sampling effort, the Partnering Team decided in Phase II to (a) collect soil samples from one sample interval associated with 11 soil borings and (b) collect groundwater samples from four sample depth intervals associated with 11 different locations. The Phase II soil samples were analyzed for the Phase I set of target analytes. The Phase II groundwater samples were analyzed for VOCs.

The soil and groundwater analytical results were screened against PSLs, and it was determined that soil and groundwater at PSC 45 are contaminated (i.e., contain analytes at concentrations exceeding the PSLs). The nature of the contamination was determined; however, the areal extent of contamination was not completely delineated in soil or groundwater.

The analytical results from the two phases of field work and the information on groundwater movement from the USGS study (USGS, 1998) were used to evaluate risk to human health and ecological receptors. Groundwater movement at the site is strongly influenced by natural and anthropogenic factors. These factors are impacting both the contour of the groundwater plume and the rate at which the analytes may be discharging into the St. Johns River. According to the USGS study, groundwater flow direction in the upper layer of the surficial aquifer extends from land surface to 15 feet below msl and appears to be seeping into the stormwater drains through joints and cracks. The stormwater collection system discharges into St. Johns River after crossing OU 3. The intermediate layer of the surficial aquifer extends from the bottom of the upper layer down to the top of the Hawthorn Group. Based upon information presented in the USGS study, it was concluded that it may take 80 years before contaminated groundwater in the intermediate layer discharges into the St. Johns River.

9.1 SUMMARY OF HUMAN HEALTH SRE AND ECOLOGICAL RISK ASSESSMENT

9.1.1 Human Health Risk Assessment Summary and Conclusions

Risks of human exposure to soil, groundwater, and inhalation of VOCs present in groundwater as a result of vapor intrusion at PSC 45 were evaluated. The carcinogenic risk for exposure to soil by hypothetical future residents exceeded the FDEP's target risk level. Based upon the calculated BAP equivalent values, the COCs for soil are the cPAHs. The COCs in groundwater include , manganese, TPH, cPAHs, naphthalene, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, isopropylbenzene, tetrachloroethene, trichloroethene, vinyl chloride, and xylene. The carcinogenic risk for vapor intrusion exceeded the FDEP's target risk level. The COC for the vapor intrusion risk is trichloroethene. This analyte is also listed as a COC in groundwater. The cumulative carcingenic risks for the hypothetical future residential exposure to soil, groundwater, and inhalation of VOCs associated with vapor intrusion exceeded the USEPA's target risk range of 10^{-4} to 10^{-6} and the FDEP's target risk level of 10^{-6}. Cumulative noncarcinogenic risks for residential exposure to soil, groundwater, and inhalation of VOCs associated with vapor intrusion exceeded the USEPA's and the FDEP's target HQ of 1. Neither the cumulative carcingenic risks nor the cumulative noncarcinogenic risks exceeded either the USEPA's or the FDEP's risk targets for human receptors that are currently associated with PSC 45.

In addition, risks associated with exposure to soil and vapor intrusion at PSC 45 by industrial workers and risks associated with exposure to soil by maintenance workers, construction workers, and adolescent trespassers were evaluated. Carcinogenic and noncarcinogenic risks for these receptors were within or below the applicable USEPA and FDEP risk ranges and risk levels.

9.1.2 Ecological Risk Assessment Summary and Conclusions

The ERA evaluated the potential risk to ecological receptors that may be exposed to soil and groundwater. With regard to the ecological receptors, it was determined that the terrestrial exposure pathway is incomplete. This is because the site-related contamination is limited to subsurface soil and groundwater, and the urban/industrial nature of the area surrounding PSC 45 does not support utilization of the area by terrestrial receptors. The groundwater aquifer that is associated with PSC 45 from the intermediate layer of the surficial has not reached the St. Johns River; therefore, only the analytical data from groundwater samples collected within the upper surficial groundwater layer were evaluated in the ERA. The groundwater quality data were compared to marine surface water ESVs preferentially obtained from Chapter 62-302.530, F.A.C., *Criteria for Surface Water Quality Classifications* (Class III) (FDEP, 2012).

The results of the ERA indicate that one analyte (1,1-dichloroethene) was detected once in an upper surficial groundwater sample at a concentration (750 µg/L) that exceeded the FDEP's surface water ESV of 3.2 µg/L but not the USEPA Region 4 surface water ESV of 2,240 µg/L. The comparison of the average 1,1-dichloroethene concentration against either surface water EVA is based upon the assumption that groundwater, containing 1,1-dichloroethene, seeps into the storm sewer and the concentration does not change during the ½ mile transport from the point of seepage to the point of discharge. Therefore, it is premature to conclude that 1,1-dichloroethene is presenting a risks to aquatic receptors as there are no data on the range of concentration of 1,1-dichloroethene in the storm sewer and all the groundwater concentrations of 1,1-dichloroethene were less than the USEPA Region 4 ESV.

Only two shallow groundwater samples were analyzed for SVOCs, PAHs, PCBs, and metals, so there is some uncertainty associated with the evaluation of potential ecological risks using this small data set. Overall, however, the data from the two samples does not indicate a significant potential for site-related ecological risks.

9.1.3 Revised Conceptual Site Model

Based on the HHRA and ERA conclusions, unacceptable levels of risk were identified in the soil and groundwater. Unacceptable levels of risk to human receptors due to contaminants in soil were limited to the COC cPAHs. Unacceptable levels of risk to human receptors due to contaminants in groundwater were limited to the COCs manganese, TPH, cPAHs, naphthalene, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, benzene, isopropylbenzene, tetrachloroethene, trichloroethene, vinyl chloride, and xylene, assuming that the surficial aquifer groundwater is used in the future by hypothetical child and adult lifelong residents as drinking water, although site use by these receptors is not likely as land use will likely not change from current land use in the foreseeable future.

9.2 RECOMMENDATIONS

The information presented in this RI demonstrates that the nature of the contamination is known but the extent of contamination in soil has not been fully delineated. The groundwater quality data suggest that the extent of contamination, associated with PSC 45, has been adequately delineated and, based on review of the data, the Partnering Team concluded that a second RI be conducted to evaluate the presence of potential second source area located to the north/northeast of PSC 45.

Based on review of the risks posed by soils, it is recommended that soils in the source area be considered for a removal action. Some limited additional soil sampling should be conducted possibly as part of a remedial design for a potential removal action. This effort should be limited to the measurement

of cPAHs in the immediate vicinity of the former wash rack adjacent to the soil samples collected in Phase II of the RI.

For remaining groundwater impacts that can be attributed to PSC 45, the extent of contamination has been adequately delineated. Manganese and PAH impacts noted in shallow groundwater may be mitigated by a source zone soil removal action. Remaining groundwater impacts may be attenuated naturally. It should be noted that additional groundwater sampling would be necessary to fully evaluate monitored natural attenuation (MNA), should MNA be proposed as a component of a groundwater remedy. This monitoring effort may be best conducted after any removal action for source zone soils.

Based on the results of the human health screening evaluation summary, it is likely that any future remedy for the site includes site use restrictions to prevent residential development of the PSC 45 area until impacted media are demonstrated to be less than residential risk thresholds. The land use restrictions should also include a prohibition on the use of shallow groundwater until remaining contamination falls below residential risk thresholds.

The results of the ERA suggest that 1,1-dichloroethene may present a potential risk to aquatic receptors in the St. Johns River based on the FDEP surface water ESV. Based on the USEPA Region 4 ESV, groundwater concentrations of this compound do not pose risks to aquatic receptors. The NAS Jacksonville Partnering Team determined that an additional downgradient well would be added and another round of groundwater monitoring would be conducted to evaluate if there is potential for impact to the storm sewer. The additional data collected from the newly installed and previously existing wells should be incorporated into the FS for PSC 45, and evaluation of corrective measures related to the storm sewer shall be conducted as part of the OU 3 effort.

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APPENDIX A

FIELD FORMS DOCUMENTATION

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: PSC 45 RF/FS
PROJECT NUMBER: 112G01511
DRILLING COMPANY: Probe Domain
DRILLING RIG:

BORING NUMBER: SLB-01
DATE: 6/15/2011
GEOLOGIST: Z. Scribner
DRILLER: N/A

Screened Interval	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0	+0.5' to 0'					-	Asphalt						
1	- 0' to - 1'					dark brown	Silty sand:dry						
	- 1' to - 5'					light brown	Fine sand:dry						
2	- 5' to - 7'					light brown	Fine sand:wet						
	- 7' to - 10'					light gray	Fine sand:wet						
3	- 10' to - 12'					light gray	Fine sand:wet						
	- 12' to -15'					med gray	clay,fine sand; wet (mainly clay)						
4	- 15' to- 19'					light brown + light grey marbled	clay,fine sand; wet (mainly clay)						
	- 19' to - 20'					light to medium grey	clay,fine sand; wet (mainly clay)						
5	- 20' to - 23'					medium light grey	clay,fine sand; wet (mainly sand)						
	- 23' to - 25'					light gray	fine sand w/clay;wet (mainly sand)						
6	- 25' to - 30'					light gray	fine sand w/clay;wet (mainly sand)						
7	- 30' to - 35'					light gray	fine sand w/clay;wet (mainly sand)						
8	- 35' to - 38'					light brown	fine sand w/clay;wet (mainly sand)						
	- 38' to - 40'					light brown (orangish)	fine sand w/clay;wet (mainly sand)						
9	- 40' to - 45'					dark grey	fine sand; wet						
10	- 45' to - 50'					dark grey	fine sand; wet						
11	- 50' to - 55'					dark grey	fine sand; wet						
12	- 55' to - 60'					dark grey	fine sand; wet						
13	- 60' to - 64.5'					dark grey	fine sand; wet *(hard packed at 63 to 64.5)						
	- 64.5' to - 65'					light gray	fine sand; wet						
14	- 65' to - 70'					dark grey	fine sand; wet (liner& sand stuck in rod)						

Remarks: Probe Domain hand augered to 5' and used 5' DPT Rods

Drilling Area Background (ppm): NA

Converted to Well: Yes ____ No X Well I.D. #: NA

Tetra Tech, Inc.

BORING LOG

PROJECT NAME:	PSC 45 RF/FS	BORING NUMBER:	SLB-02
PROJECT NUMBER:	112G01511	DATE:	6/16/2011
DRILLING COMPANY:	Probe Domain	GEOLOGIST:	Z. Scribner
DRILLING RIG:		DRILLER:	N/A

					MATERIAL DESCRIPTION					PID/FID Reading (ppm)			
Screened Interval	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	Sample	Sampler BZ	Borehole**	Driller BZ**
0	0					-	Grass/topsoil						
1	- 0' to - 0.5'					light gray	silty,rock fine sand; dry						
	- 0.5' to - 4.5'					dark gray	silty,rock fine sand; dry						
	- 4.5' to - 6'					light brown	silty,rock fine sand; wet & dry						
2	- 6' to - 7'					dark gray	silty fine sand: wet						
	- 7' to - 9'					dark brown	fine sand:wet						
	- 9' to -10'					light brown	fine sand:wet						
3	- 10' to -12'					light brown	fine sand:wet						
	- 12 to- 15'					light gray	clay with fine sand; wet						
4	- 15 ' to - 20'					light gray	claywith fine sand; wet						
5	- 20' to - 25'					light gray	claywith fine sand; wet						
6	- 25' to - 30'					light gray	fine sand w/clay;wet						
7	- 30' to - 35'					light gray	fine sand w/clay;wet						
8	- 35' to - 40'					light gray	fine sand w/clay;wet						
9	- 40' to - 41'					light gray	fine sand w/clay;wet						
	- 41' to - 43'					light brown	fine sand w/ minimal clay;wet						
	- 43' to - 45'					dark grey	fine sand; wet						
10	- 45' to - 50'					dark grey	fine sand; wet						
11	- 50' to - 55'					dark grey	fine sand; wet						
12	- 55' to - 60'					dark grey	fine sand; wet						
13	- 60' to - 65'					dark grey	fine sand; wet						
14	- 65' to - 70'					dark grey	fine sand; wet						

Drilling Area

Remarks: Probe Domain hand augered to 6' to get below layers containing rocks and organic debris

Background (ppm): NA

Converted to Well: Yes ____ No **X** Well I.D. #: NA

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: PSC 45 RF/FS
PROJECT NUMBER: 112G01511
DRILLING COMPANY: Probe Domain
DRILLING RIG:

BORING NUMBER: SLB-03
DATE: 6/16/2011
GEOLOGIST: Z. Scribner
DRILLER: N/A

Screened Interval	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0	0					-	Gray Silty sand; rocky;dry						
1	- 0' to - 0.5'					dark gray	silty fine sand,rock; dry						
	- 0.5' to - 3'					light gray	silty fine sand,rock; dry						
	- 3' to - 4'					dark brown	silty fine sand;dry						
	- 4' to - 5'					light brown	silty fine sand;dry						
2	- 5' to - 10'					light brown	silty fine sand; wet and dry						
3	- 10 to -11.5'					light brown	silty fine sand; wet						
	- 11.5 ' to - 14'					light gray	silty fine sand; wet						
	- 14' to - 15'					light gray	clay and fine sand						
4	- 15' to - 20'					light gray	clay & fine sand: compact						
5	- 20' to - 23'					light gray	clay & fine sand: compact						
	- 23' to - 25'					light gray + light brown	clay & fine sand: (50/50)						
6	- 25' to - 30'					light gray	fine sand clay; (mostly sand)						
7	- 30' to - 35'					light gray	fine sand						
8	- 35' to - 40'					light gray	fine sand						
9	- 40' to - 41.5'					light gray	fine sand						
	- 41.5' to - 45'					light brown (orangish)	fine sand						
10	- 45' to - 50'					light brown	fine sand						
11	- 50' to - 55'					dark grey	fine sand						
12	- 55' to - 60'					dark grey	fine sand						
13	- 60' to - 65'					dark grey	fine sand						
14	- 65' to - 70'					dark grey	fine sand						

Drilling Area
Background (ppm): NA

Remarks: Tetra Tech hand augered to five feet

Converted to Well: Yes ____ No **X** Well I.D. #: NA

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: PSC 45 RF/FS
PROJECT NUMBER: 112G01511
DRILLING COMPANY: Probe Domain
DRILLING RIG:

BORING NUMBER: SLB-04
DATE: 6/17/2011
GEOLOGIST: Z. Scribner
DRILLER: N/A

Screened Interval	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
0	+2" to 0	-				-	asphalt						
1	- 0' to - 2'					light gray	fine sandy, dry, silt						
	- 2' to - 2.5'					dark brown	fine sandy silt; dry						
	- 2.5' to - 3.5'					light brown	fine sandy silt; dry						
	- 3.5' to - 5'					light gray	fine sand: dry						
2	- 5' to - 10'					light gray	fine sand:wet (minimum clay)						
See remarks	-10 to -15'					light gray	fine sand and clay						
3	- 15 ' to - 20'					light gray	clay,fine sand; wet						
4	- 20' to - 21'					light gray	fine sand and clay; wet						
	- 21' to - 24'					light brown	clay & fine sand: wet						
	- 24' to - 24.25'					dark brown	clay & fine sand (hard packed)						
	- 24.25' to - 25'					light gray	clay and fine sand						
5	- 25' to - 30'					light gray	clay and fine sandy clay						
6	- 30' to - 33'					light gray	fine sand						
	- 33' to - 35'					light brown	fine sand						
7	- 35' to - 40'					light gray	fine sand						
8	- 40' to - 41'					light gray	fine sand						
	- 41' to - 44.5'					light brown (orangish)	fine sand						
	- 44.5' to - 45'					dark grey	fine sand						
9	- 45' to - 50'					dark grey	fine sand						
10	- 50' to - 55'					dark grey	fine sand						
11	- 55' to - 60'					dark grey	fine sand						
12	- 60' to - 65'					dark grey	fine sand						
13	' - 65' to - 70'					dark grey	fine sand						

Drilling Area Background (ppm): NA

Remarks: No line item in Field Log for Interval -10' to -15'.
Informationsection of Field log indicated soil was light gray fine sand and clay
Line item entered in this log for Interval -10' to -15'

Converted to Well: Yes ____ No **X** Well I.D. #: NA

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: PSC 45 - BLDG 200
Project No.: 112G02571

Sample ID No.: JAX45-SB14-SB-0624/2011
Sample Location: SB-14
Sampled By: ES
C.O.C. No.: 2264 + 2270

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 06/24/11	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1155	0.5'-2.5'	LT GRAY	FINE SILTY SAND
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

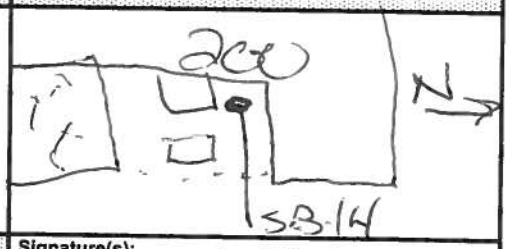
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	VOA (3) HCl (1) MEOH		
PAH/PCB/SVOC	8 oz		
TCPH	4 oz		
METALS	4 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: 112G0151 ←
Project No.: 25645 - BLDG 208

Sample ID No.: JAX45-SB13-SB-G024201
Sample Location: SB-13
Sampled By: JS
C.O.C. No.: 3869 + 2270

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date: 6/24/11	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1125	0.5'-2.5	LT GRAY	FINE SILTY SAND
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

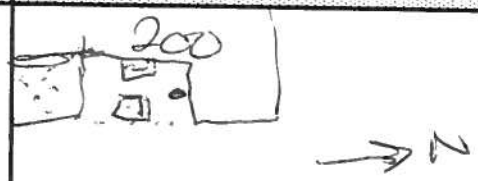
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	VOA (3) HCl (1) MeOH		
PAH/PCB/SVOC	8 oz		
TRPH	4 oz		
METALS	4 oz		

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: PSC45 - BLDG 200
Project No.: 112G0151

Sample ID No.: JAX45-~~SB~~SB12-SB-060242011
Sample Location: SB-12
Sampled By: [illegible]
C.O.C. No.: 22564 + 22570

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1055	0.5'-2.5'	LT. GRAY	FINE SILTY SAND
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

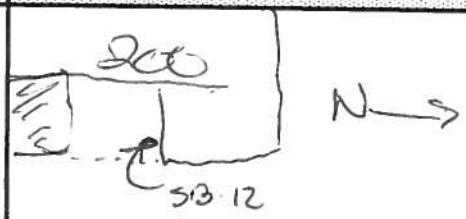
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	40mL (3) HCl (1) MeOH		
PCB/PAH/SVOC	8oz		
TRPH	4oz		
METALS	4oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	JAX45-DUP01-060242011

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: PSE45 - BLDG 260
Project No.: 112G0151

Sample ID No.: JAX45-SB11-SB-0624-2011
Sample Location: SB-11
Sampled By: JJ
C.O.C. No.: 2269 - 2270

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/24/11	0.5'-2.5'	LT. GRAY	f SILTY FINE SAND
Time: 1035			
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

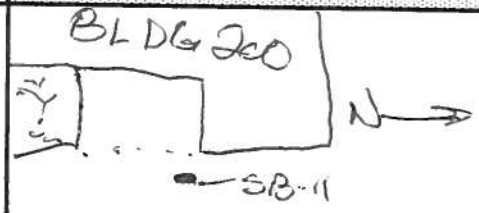
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	40mL (3) H2O (1) MeOH		
PCB/PAH/SVOC	8oz		
TPH	4oz		
METALS	4oz		

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: @PSC 45 - BLDG 200
Project No.: 112G06511

Sample ID No.: JAX45-SB10-SB0624211
Sample Location: SB-10
Sampled By: BS
C.O.C. No.: 2969 - 2270

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date: 6/24/11	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1020	0.5'-2.5'	LT GRAY	FINE SILTY SAND
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

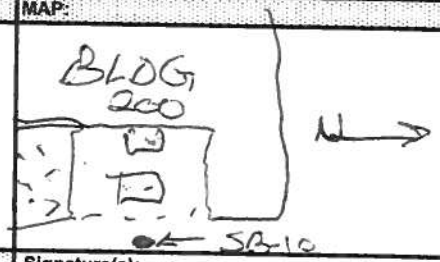
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	4 DmL (3) H2O (1) MeOH		
PCB/PAH/SVOC	8 oz		
TAL PP METALS	4 oz		
	4 oz		

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: PSC 45 - BLDG 200
Project No.: 112G01511

Sample ID No.: SAX45-SB09-SS-0624 2011
Sample Location: SB-09
Sampled By: ES
C.O.C. No.: 2269 + 2270

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date: 6/24/11	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0955	0.5 - 2.5	LT. GRAY	FINE SILTY SAND
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

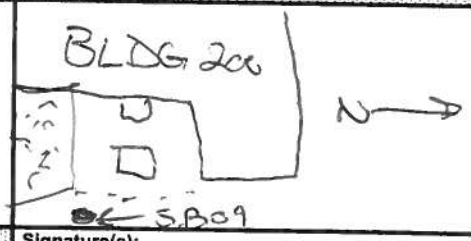
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	4 (40mL) (3) H2O (3) MEOH		
PCB/PAH/SVOC	8 oz		
TRPH	4 oz		
METALS	4 oz		

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: PSC45-BLDG200
Project No.: 112G01511

Sample ID No.: SAX45-SB08-SB-0624-2011
Sample Location: SB08
Sampled By: [redacted]
C.O.C. No.: 22679+2270

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date: 06/24/11	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0930	0.5'-2.5'	LT. GRAY	FINE SILTY SAND
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

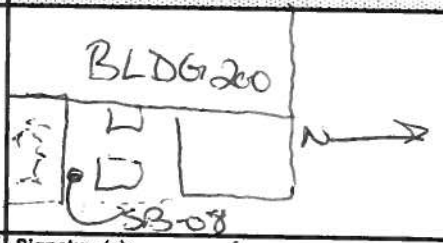
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	40mL (3) H_2O (1) MeOH		
PCB/PAH/SVOC	8 oz		
TPH	4 oz		
METALS	4 oz		

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

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Project Site Name: PSC 45 - BLDG 200
Project No.: 112G01511

Sample ID No.: JAX45-SB07-SB0606241201
Sample Location: SB07
Sampled By: J.S
C.O.C. No.: 22609 + 22610

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date: 06/24/11 Time: 0910 Method: GRAB Monitor Reading (ppm):	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0.5'-2.5'	LT. GRAY	SILTY SAND (FINE

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	40mL (3) H2O (1) MEOH		
PCB/PAH/SVOC	8oz		
TRPH	4oz		
METALS	4oz		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: BLDG 200 - PSC 45
Project No.: 112G01511

Sample ID No.: JAX45-SB06-SO-0024-R11
Sample Location: SB-06
Sampled By: ES
C.O.C. No.: 2269-2270

- [ ] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date: 06/24/11	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 0855	0.5'-2.5'	LT GRAY	Silty Sand (fine)
Method: GRAB			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

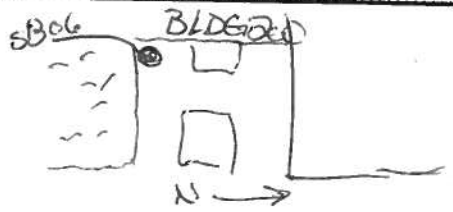
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	40mL (3) H2O (1) MEOH		
PAH/PCB/SVOC	8oz		
TRPH	4oz		
METALS	4oz		

OBSERVATIONS / NOTES:

MAP:



Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: PSC 45 - BLDG 200
Project No.: 112G01511

Sample ID No.: JAX45-SB05-SB-062404
Sample Location: SB05
Sampled By: ZS
C.O.C. No.: 22694+22770

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date: 06/24/2004 Time: 0840 Method: GRAB Monitor Reading (ppm):	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0.5'-2.5'	Lt. GRAY	Silty Sand

COMPOSITE SAMPLE DATA:

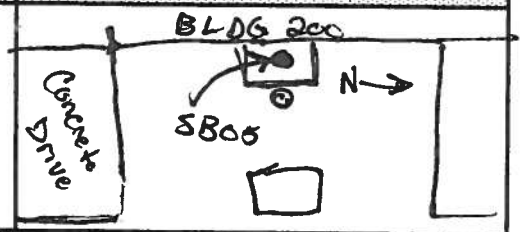
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	(3) 40 ml H2O (1) 40 ml MeOH		
PCB/PAH/SVOC	8oz		
TPH	4 oz		
METALS	4 oz		

OBSERVATIONS / NOTES:

MAP:



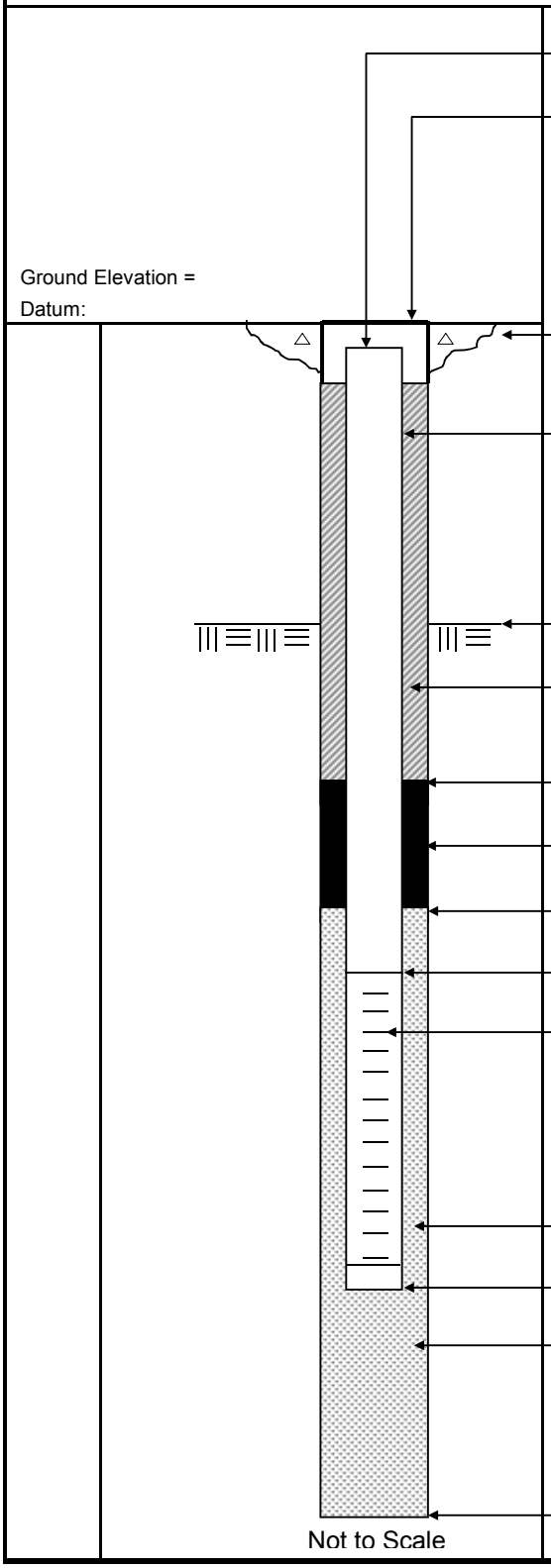
Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tech, Inc. **MONITORING WELL SHEET** WELL No.: NASJAX-45-B200-MW01S

PROJECT:	NAS JAX	DRILLING Co.:	Probe Domain	BORING No.:	MW-01S
PROJECT No.:	112G1511	DRILLER:	Jason	DATE COMPLETED:	04/28/11
SITE:	PSC 45 Bldg. 200	DRILLING METHOD:	DPT	NORTHING:	
GEOLOGIST:	A. Pate	DEV. METHOD:	Centrifigal	EASTING:	



Elevation / Depth of Top of Riser: /NA

Elevation / Height of Top of Surface Casing: /NA

I.D. of Surface Casing: 4"

Type of Surface Casing: steel man hole

Type of Surface Seal: cement

I.D. of Riser: 1"

Type of Riser: Schedule 40 PVC

Borehole Diameter: 3.25 "

Elevation / Depth Top of Rock: / NA

Type of Backfill: Portlant Cement Type 1

Elevation / Depth of Seal: / 1'

Type of Seal: 20/30

Elevation / Depth of Top of Filter Pack: / 3'

Elevation / Depth of Top of Screen: / 3'

Type of Screen: Schedule 40 PVC

Slot Size x Length: 0.010 in.

I.D. of Screen: 1"

Type of Filter Pack: 30/65 Sand

Elevation / Depth of Bottom of Screen: / 13'

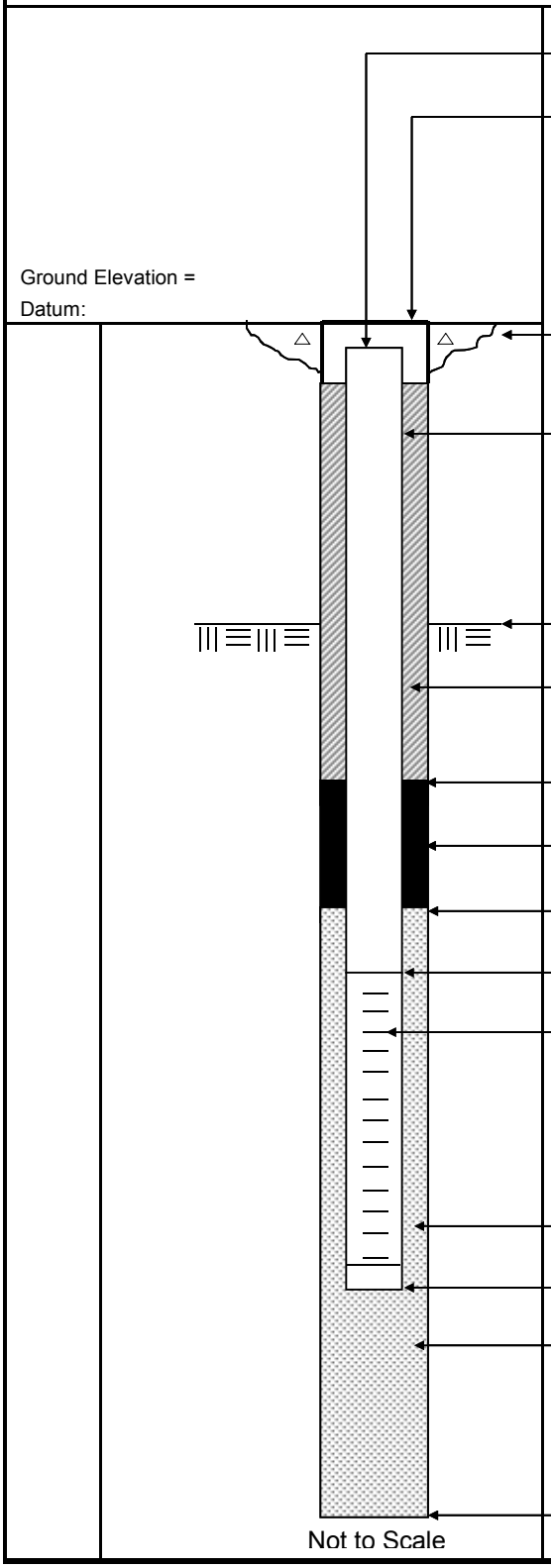
Elevation / Depth of Bottom of Filter Pack: / 13'

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 13'

Tech, Inc. **MONITORING WELL SHEET** WELL No.: NASJAX-45-B200-MW01D

PROJECT:	NAS JAX	DRILLING Co.:	Probe Domain	BORING No.:	MW-01D
PROJECT No.:	112G1511	DRILLER:	Jason	DATE COMPLETED:	04/28/11
SITE:	PSC 45 Bldg. 200	DRILLING METHOD:	DPT	NORTHING:	
GEOLOGIST:	A. Pate	DEV. METHOD:	Centrifigal	EASTING:	



Elevation / Depth of Top of Riser: /NA

Elevation / Height of Top of Surface Casing: /NA

I.D. of Surface Casing: 4"

Type of Surface Casing: steel man hole

Type of Surface Seal: cement

I.D. of Riser: 1"

Type of Riser: Schedule 40 PVC

Borehole Diameter: 3.25 "

Elevation / Depth Top of Rock: / NA

Type of Backfill: Portlant Cement Type 1

Elevation / Depth of Seal: / 33'

Type of Seal: 20/30

Elevation / Depth of Top of Filter Pack: / 35'

Elevation / Depth of Top of Screen: / 35'

Type of Screen: Schedule 40 PVC

Slot Size x Length: 0.010 in.

I.D. of Screen: 1"

Type of Filter Pack: 30/65 Sand

Elevation / Depth of Bottom of Screen: / 40'

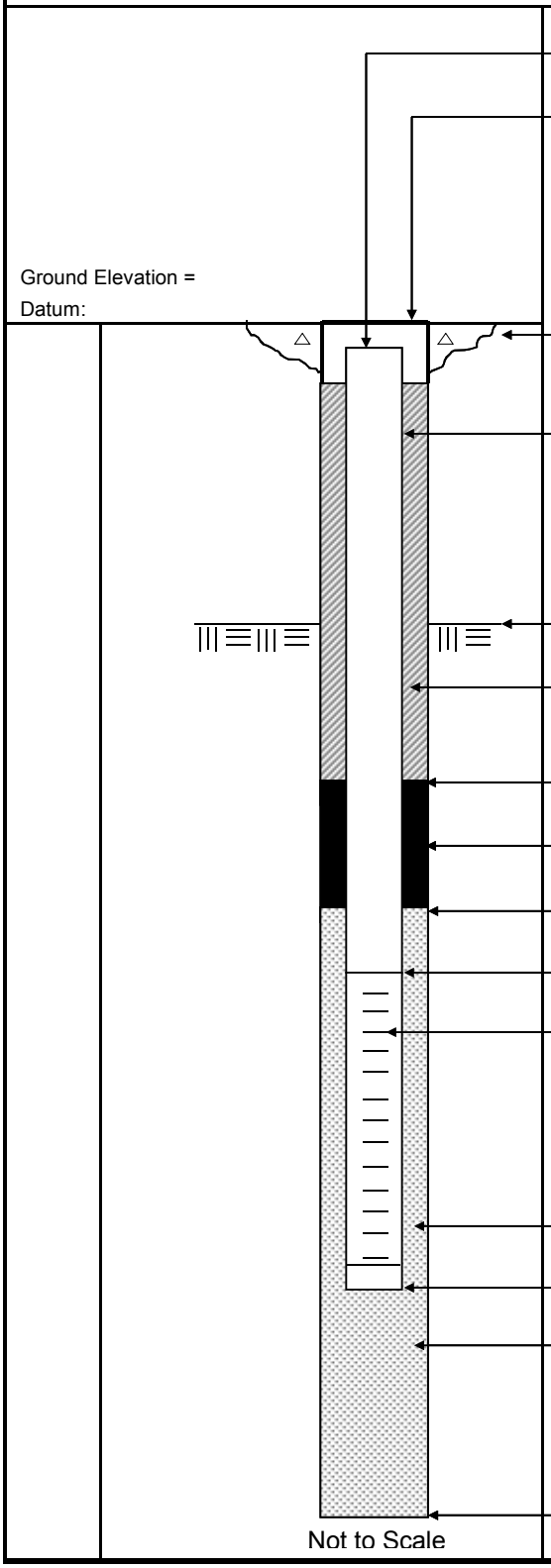
Elevation / Depth of Bottom of Filter Pack: / 40'

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 40'

Tech, Inc. **MONITORING WELL SHEET** WELL No.: NASJAX-45-B200-MW02S

PROJECT:	NAS JAX	DRILLING Co.:	Probe Domain	BORING No.:	MW-02s
PROJECT No.:	112G1511	DRILLER:	Jason	DATE COMPLETED:	04/28/11
SITE:	PSC 45 Bldg. 200	DRILLING METHOD:	DPT	NORTHING:	
GEOLOGIST:	A. Pate	DEV. METHOD:	Centrifigal	EASTING:	



Elevation / Depth of Top of Riser: /NA

Elevation / Height of Top of Surface Casing: /NA

I.D. of Surface Casing: 4"

Type of Surface Casing: steel man hole

Type of Surface Seal: cement

I.D. of Riser: 1"

Type of Riser: Schedule 40 PVC

Borehole Diameter: 3.25 "

Elevation / Depth Top of Rock: / NA

Type of Backfill: Portlant Cement Type 1

Elevation / Depth of Seal: / 1'

Type of Seal: 20/30

Elevation / Depth of Top of Filter Pack: / 3'

Elevation / Depth of Top of Screen: / 3'

Type of Screen: Schedule 40 PVC

Slot Size x Length: 0.010 in.

I.D. of Screen: 1"

Type of Filter Pack: 30/65 Sand

Elevation / Depth of Bottom of Screen: / 13'

Elevation / Depth of Bottom of Filter Pack: / 13'

Type of Backfill Below Well: N/A

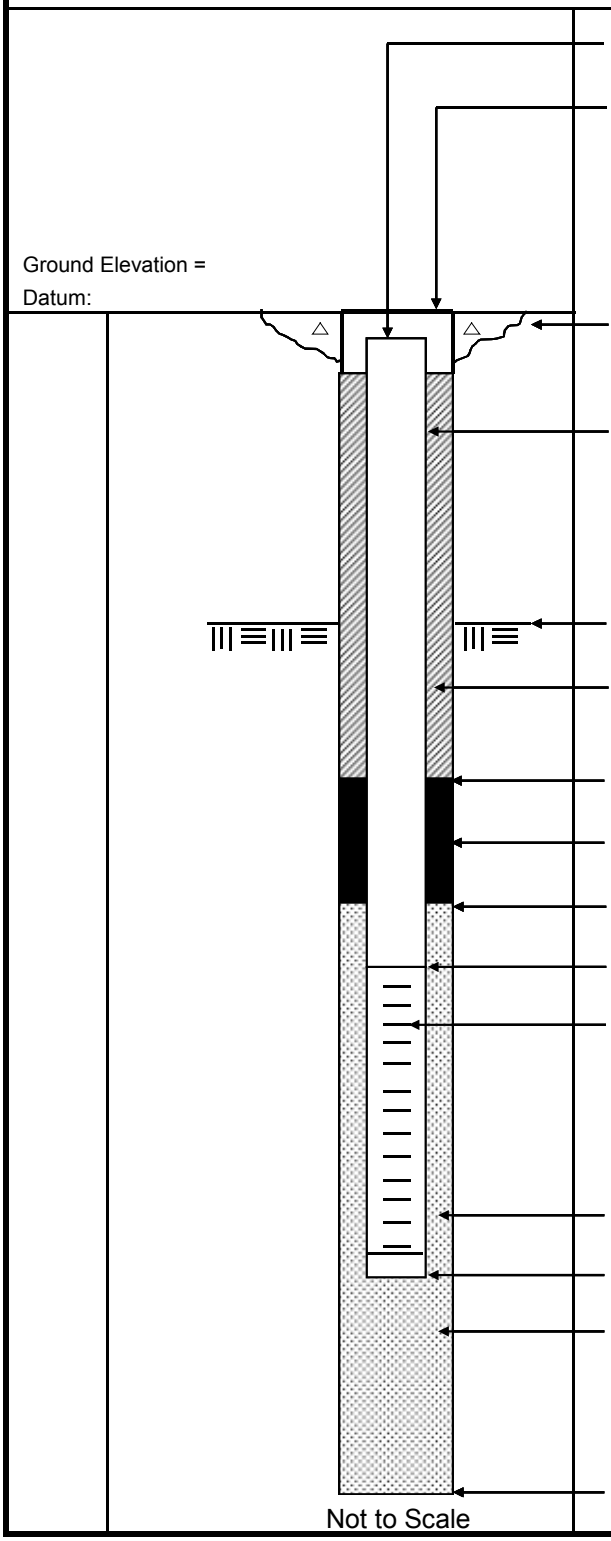
Elevation / Total Depth of Borehole: / 13'

Tech, Inc.

MONITORING WELL SHEET

WELL No.: NASJAX-45-B200-MW02D

PROJECT:	NAS JAX	DRILLING Co.:	Probe Domain	BORING No.:	MW-02D
PROJECT No.:	112G1511	DRILLER:	Jason	DATE COMPLETED:	04/28/11
SITE:	PSC 45 Bldg. 200	DRILLING METHOD:	DPT	NORTHING:	
GEOLOGIST:	A. Pate	DEV. METHOD:	Centrifigal	EASTING:	



Elevation / Depth of Top of Riser: /NA

Elevation / Height of Top of Surface Casing: /NA

I.D. of Surface Casing: 4"

Type of Surface Casing: steel man hole

Type of Surface Seal: cement

I.D. of Riser: 1"

Type of Riser: Schedule 40 PVC

Borehole Diameter: 3.25 "

Elevation / Depth Top of Rock: / NA

Type of Backfill: Portlant Cement Type 1

Elevation / Depth of Seal: / 33'

Type of Seal: 20/30

Elevation / Depth of Top of Filter Pack: / 35'

Elevation / Depth of Top of Screen: / 35'

Type of Screen: Schedule 40 PVC

Slot Size x Length: 0.010 in.

I.D. of Screen: 1"

Type of Filter Pack: 30/65 Sand

Elevation / Depth of Bottom of Screen: / 40'

Elevation / Depth of Bottom of Filter Pack: / 40'

Type of Backfill Below Well: N/A

Elevation / Total Depth of Borehole: / 40'

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: CTO JM19 **Project No.:** 112601511
Location: NAS JAX - PSC 45 - Building 200 **Personnel:** Z. Scribner
Weather Conditions: Cloudy; Wind 75°F **Measuring Device:** In-Situ, Inc.
Tidally Influenced: Yes ___ No ___ **Remarks:**

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW01S	5/3/4	0815		12.69	5.84			
MW01D	"	0820		39.56	5.97			
MW02S	"	1050		12.80	5.40			
MW02D	"	1052		39.52	5.54			

* All measurements to the nearest 0.01 foot

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: PSC 45 Building 200		SITE LOCATION: NAS JAX
WELL NO: NASJAX-45-B200-MW015	SAMPLE ID:	DATE: 05/04/2011

PURGING DATA

WELL DIAMETER (in): 0.75"	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH (ft): 12.69-5.69	STATIC DEPTH TO WATER (ft): 5.84	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
0.51 Liters (12.69 - 5.84) • 0.0757

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6.25	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.25	PURGE INITIATED AT: 0825	PURGE ENDED AT: 0841	TOTAL VOLUME PURGED (Liters): 3.2

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (ft)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	COLOR
0825	—	—	200	5.84	—	—	—	—	—	—	clear
0830	1.0	1.0	200	6.02	7.10	23.13	519	1.44	30.14	-164.2	
0835	1.0	2.0	200	6.05	7.02	22.82	549	1.15	21.91	-184.0	
0838	0.6	2.6	200	6.05	7.00	22.71	564	1.04	10.25	-186.1	
0841	0.6	3.2	200	6.05	7.00	22.69	566	1.02	7.85	-187.7	

WELL CAPACITY (Liters Per Foot): **0.75"** = 0.0757; **1"** = 0.151; **1.25"** = 0.227; **2"** = 0.605; **3"** = 0.37; **4"** = 1.40; **5"** = 3.861; **6"** = 5.564; **12"**= 22.25
TUBING INSIDE DIA. CAPACITY (Ltr./Ft.): **1/8"** = 0.00227; **3/16"** = 0.00529; **1/4"** = 0.00984; **5/16"** = 0.0151; **3/8"** = 0.0227; **1/2"** = 0.0378; **5/8"** = 0.0605

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Z. SCRIBNER	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 0845	SAMPLING ENDED AT: 0915
PUMP OR TUBING DEPTH IN WELL (feet): 6.25	SAMPLE PUMP FLOW RATE (mL per minute): 200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
1	2	AG	1L	None	1L (2)	7.00	PCBs	PP
2	2	AG	1L	None	1L (2)	7.00	SVOA	PP
3	2	AG	1L	HCl	1L (2)	<2	FL PRO	PP
4	3	CG	40mL	HCl	40mL (3)	<2	8260B	RFPP
5	1	P	250mL	HNO_3	250mL	<2	6010 Metals	PP

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: PSC 45 Building 200	SITE LOCATION: NAS JAX	
WELL NO: NAS JAX-45-B200-MW01D	SAMPLE ID: NAS JAX-45-B200-MW01D-20110504	DATE: 05 / 04 / 2011

PURGING DATA

WELL DIAMETER (in): 0.75"	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH (ft): 39.56-34.56	STATIC DEPTH TO WATER (ft): 5.97	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

1.35 Liters (0.00529 · 65) +1 (25)

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

1.35 Liters (0.00529 · 65) +1

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 37'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 37'	PURGE INITIATED AT: 0935	PURGE ENDED AT: 0956	TOTAL VOLUME PURGED (Liters): 4.2

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (ft)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	COLOR
0935	—	—	200	5.97	—	—	—	—	—	—	clear
0940	1.0	1.0	200	6.62	6.76	22.60	284	0.80	22.19	-172.4	↓
0945	1.0	2.0	200	6.71	6.27	22.71	224	0.82	32.19	-134.1	↓
0950	1.0	3.0	200	6.72	6.19	23.78	147	0.94	20.12	-124.2	↓
0953	0.6	3.6	200	6.71	6.18	23.78	146	1.00	11.11	-124.8	↓
0956	0.6	4.2	200	6.71	6.18	23.78	144	1.02	7.04	-124.9	↓

WELL CAPACITY (Liters Per Foot): **0.75"** = 0.0757; **1"** = 0.151; **1.25"** = 0.227; **2"** = 0.605; **3"** = 0.37; **4"** = 1.40; **5"** = 3.861; **6"** = 5.564; **12"** = 22.25
TUBING INSIDE DIA. CAPACITY (Ltr./Ft.): **1/8"** = 0.00227; **3/16"** = 0.00529; **1/4"** = 0.00984; **5/16"** = 0.0151; **3/8"** = 0.0227; **1/2"** = 0.0378; **5/8"** = 0.0605

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Z. SCRIBNER	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1000	SAMPLING ENDED AT: 1030
PUMP OR TUBING DEPTH IN WELL (feet): 37'	SAMPLE PUMP FLOW RATE (mL per minute): 200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
1	2	AG	1L	None	1L (2)	6.18	PCBs	PP
2	2	AG	1L	None	1L (2)	6.18	SVOA	PP
3	2	AG	1L	HCl	1L (2)	<2	FL PRO	PP
4	3	CG	40mL	HCl	40mL (3)	<2	8260B	RFPP
5	1	P	250mL	HNO_3	250mL	<2	6010 Metals	PP

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: PSC 45 Building 200	SITE LOCATION: NAS JAX	
WELL NO: NASJAX-45-B200-MW02D	SAMPLE ID: NASJAX-45-B200-MW02D-20110504	DATE: 05 / 04 / 2011

PURGING DATA

WELL DIAMETER (in): 0.75"	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH (ft): 39.52 - 34.52	STATIC DEPTH TO WATER (ft): 5.54	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)

Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

1.35 Liters (65 · 0.00529) + 1

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 37'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 37'	PURGE INITIATED AT: 1155	PURGE ENDED AT: 1221	TOTAL VOLUME PURGED (Liters): 5.7

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (ft)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	COLOR
1155	—	—	200	5.54	—	—	—	—	—	—	clear/cloudy
1200	1.0	1.0	300	6.42	6.67	25.15	322	1.22	135.6	-59.7	cloudy
1205	1.5	2.5	200	6.67	6.46	25.51	250	0.67	82.7	-81.9	cloudy
1215	2.0	4.5	200	6.66	6.28	25.41	207	0.66	9.44	-67.5	clear
1218	0.6	5.1	200	6.66	6.28	25.46	207	0.66	8.21	-66.1	↓
1221	0.6	5.7	200	6.65	6.27	25.47	206	0.65	6.44	-66.0	↓

WELL CAPACITY (Liters Per Foot): **0.75"** = 0.0757; **1"** = 0.151; **1.25"** = 0.227; **2"** = 0.605; **3"** = 0.37; **4"** = 1.40; **5"** = 3.861; **6"** = 5.564; **12"**= 22.25
TUBING INSIDE DIA. CAPACITY (Ltr./Ft.): **1/8"** = 0.00227; **3/16"** = 0.00529; **1/4"** = 0.00984; **5/16"** = 0.0151; **3/8"** = 0.0227; **1/2"** = 0.0378; **5/8"** = 0.0605

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Z. SCRIBNER	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1225	SAMPLING ENDED AT: 1255
PUMP OR TUBING DEPTH IN WELL (feet): 37'	SAMPLE PUMP FLOW RATE (mL per minute): 200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type: ____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
1	2	AG	1L	None	1L (2)	6.27	PCBs	PP
2	2	AG	1L	None	1L (2)	6.27	SVOA	PP
3	2	AG	1L	HCl	1L (2)	<2	FLPRO	PP
4	3	CG	40mL	HCl	40mL (3)	<2	8260B	RFPP
5	1	P	250mL	HNO_3	250mL	<2	6010-METAL	PP

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; T = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: PSC 45 Building 220	SITE LOCATION: NAS JAX	
WELL NO: NASJAX-45-B220-MW025	SAMPLE ID: NAS JAX-45-B220-MW025-20110504	DATE: 05 / 04 / 2011

PURGING DATA

WELL DIAMETER (in): 0.75	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH (ft): 12.50 - 2.50	STATIC DEPTH TO WATER (ft): 5.40	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
0.57 Liters (12.50 - 5.40) • 0.075

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 6'	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6'	PURGE INITIATED AT: 1105	PURGE ENDED AT: 1230	TOTAL VOLUME PURGED (Liters): 12.5

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (ft)	pH (standard units)	TEMP. (°C)	COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	TURBIDITY (NTUs)	ORP (mV)	COLOR
1105	—	—	200	5.40	—					—	BROWN
1110	1.0	1.0	200	5.72	6.37	24.10	370	0.86	210.11	-72.4	BROWN
1120	1.0	3.0	200	5.73	6.46	23.85	362	1.14	167.2	-112.4	AMBER
1130	2.0	5.0	200	5.73	6.43	23.74	349	1.05	160.2	-108.7	"
1140	2.0	7.0	200	6.73	6.42	24.05	339	0.90	121.2	-124.1	YELLOW TO ORANGE
1145	1.0	8.0	100	5.71	6.42	24.57	339	0.71	104.1	-129.2	
1150	0.5	8.5	100	5.71	6.42	24.54	336	0.67	128.0	-128.8	AMBER
1230	4.0	12.5	100	5.70	6.41	24.56	330	0.53	106.0	-124.1	AMBER

WELL CAPACITY (Liters Per Foot): **0.75"** = 0.0757; **1"** = 0.151; **1.25"** = 0.227; **2"** = 0.605; **3"** = 0.37; **4"** = 1.40; **5"** = 3.861; **6"** = 5.564; **12"**= 22.25
TUBING INSIDE DIA. CAPACITY (Ltr./Ft.): **1/8"** = 0.00227; **3/16"** = 0.00529; **1/4"** = 0.00984; **5/16"** = 0.0151; **3/8"** = 0.0227; **1/2"** = 0.0378; **5/8"** = 0.0605

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Zach Scribner	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1240	SAMPLING ENDED AT: 1310
PUMP OR TUBING DEPTH IN WELL (feet): 6'	SAMPLE PUMP FLOW RATE (mL per minute): 200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
1	2	AG	1L	None	1L (2)	6.41	PCB	PP
2	2	AG	1L	None	1L (2)	6.41	SVOA	PP
3	2	AG	1L	HCl	1L (2)	<2	FLPRO	PP
4	3	CG	40mL	HCl	40mL (3)	<2	8260B	RFPP
5	1	P	250mL	HNO3	250mL	<2	6010 - TAL METALS	PP

REMARKS:
VERY DIRTY - could not get turbidity to drop

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : NAS JAX PSC 45 Building 200

SITE NAME: PSC 45 - Building 200

PROJECT No.: 112G04511

INSTRUMENT NAME/MODEL: YSI 556 / Turbid. meter

MANUFACTURER: YSI / MicroTPW

SERIAL NUMBER: 09F100228 / In house 200704133

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
5/4/11	YSI	ZS	4.00 pH	good		4.01 pH	8454	
			7.00 pH			7.00 pH	8437	
			10.00 pH			10.01 pH	8491	
			241 ORP			242 ORP	11B10023	
			100.3% DO			100.3% DO		
			1.413 Cond			1.414 Cond	8446	
	Turbid.-	~~ZS~~ ZS	~~12.84~~	10.00 NTU		9.96 NTU		
	meter		0.41 NTU	0.2 NTU		0.21 NTU		

FAILED CAL BOTH TIMES

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2264 | PAGE 1 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN ANALYTICAL LABS KELLY PERKINS
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
		ZACH SCRIBNER	(904) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		8160 1730 1532		SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒ (X)
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS VOC								COMMENTS
									G	HCl									
6/20	1030	JAX45-DPT12-60-062520 11				GW	G	3	3										- cool to 4°C
	1045	JAX45-DPT12-40-062020 11																	
	1055	JAX45-DPT12-20-062020 11																	
	1110	JAX45-DPT12-12-062020 11																	
	1315	JAX45-DPT13-60-062020 11																	
	1325	JAX45-DPT13-40-062020 11																	
	1345	JAX45-DPT13-20-062020 11																	
	1355	JAX45-DPT13-12-062020 11																	
	1505	JAX45-DPT14-60-062020 11																	
	1520	JAX45-DPT14-40-062020 11																	
	1530	JAX45-DPT14-20-062020 11																	
	1545	JAX45-DPT14-12-062020 11																	
	0000	JAX45-DUP01-12-062220 11																	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/21/2011	1700	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2265 | PAGE 2 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN ANALYTICAL LABS / KELLY PERKINS
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
		ZACH SCRIBNER	(904) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		8660 1730 1532		SCARBOROUGH ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS								COMMENTS
									G	HCl	VOC								
6/21	1000	JAX45-DPT15-60-06212011				GW	G	3	3										Cool to 4°C
	1015	JAX45-DPT15-40-06212011																	
	1025	JAX45-DPT15-20-06212011																	
	1030	JAX45-DPT15-12-06212011																	
	1145	JAX45-DPT16-60-06212011																	
	1200	JAX45-DPT16-40-06212011																	
	1210	JAX45-DPT16-20-06212011																	
	1215	JAX45-DPT16-12-06212011																	
	1405	JAX45-DPT17-60-06212011																	
	1420	JAX45-DPT17-40-06212011																	
	1430	JAX45-DPT17-20-06212011																	
	1435	JAX45-DPT17-12-06212011																	
↓	0000	JAX45-DPT-DUPE2-40-06212011				↓	↓	↓	↓										

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
	06/21/2011	1700			
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2266 | PAGE 3 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G07511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN ANALYTICAL / KELLY DEERING
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
		ZACH SCRIBNER	(904) 636-6125	6000 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		8660 1730 1532		SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	TYPE OF ANALYSIS: PRESERVATIVE USED: VOC								COMMENTS
									G	HCl								
6/21	1545	JAX45-DPT18-60-06212011				GW	G	3	3									-cool to 4°C
↓	1600	JAX45-DPT18-40-06212011				↓	↓	↓	↓									
	1610	JAX45-DPT18-20-06212011																
↓	1620	JAX45-DPT18-12-06212011				↓	↓	↓	↓									
																		← TRIP BLANK
6/21	1700	TB-01				QC	-	2	2									

1. RELINQUISHED BY	DATE 06/21/2011	TIME 1700	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2267 | PAGE 1 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN ANALYTICAL SERVICES / KELLI PERKINS
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
		ZACH SCRIBNER	(904) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
				SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☑ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS: VOCs	COMMENTS
									G	HCl		
6/22	0945	JAX45-DPT19-60-06222011	(*)			GW	G	9	9 (*)			(*) - INDICATES
6	1005	JAX45-DPT19-40-06222011						3	3			MS/MSD
	1020	JAX45-DPT19-20-06222011	(*)					9	9 (*)			- COOL to 4°C
	1035	JAX45-DPT19-12-06222011						3	3			
	0000	JAX45-DPT-DUP03-06222011						3	3			
	1150	JAX45-DPT20-60-06222011						3	3			
	1205	JAX45-DPT20-40-06222011						3	3			
	1220	JAX45-DPT20-20-06222011						3	3			
	1235	JAX45-DPT20-12-06222011						3	3			
	XXXX	JAX45-DPT-DUP04-40-06222011						3	3			
	1520	JAX45-DPT21-60-06222011										
	1535	JAX45-DPT21-40-06222011										
	1550	JAX45-DPT21-20-06222011										

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/22/11	1700	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2268 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN DATE	(904) 636-6125	KATAHDIN ANALYTICAL SERVICES / KELLY PERKINS
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		ZACH SCRIBNER	(904) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE
				SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 11	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS	COMMENTS
									G	HCl		
											VOC	
6/22	1605	JAX45-DPT21-R-06222011				GW	G	3	3			ICE to 4°C
6/22	1630	JAX45-DPT-RINSATE-06222011				GC	G	3	3			← RINSATE
↓	1635	TB-01				QC	-	2	2			← TRIP BLANK

1. RELINQUISHED BY	DATE 6/22/11	TIME 1700	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2269 | PAGE 1 OF 2

PROJECT NO: 112G01511	FACILITY: NAS JAX	PROJECT MANAGER ALAN PATE	PHONE NUMBER (904) 636-6125	LABORATORY NAME AND CONTACT: KATAHDIN ~~STERLING~~ ANALYTICAL SERVICES INC
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER ZACH SCRIBNER	PHONE NUMBER (904) 636-6125	ADDRESS 600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	VOC's (8260)	VOC's (8011)	VOC's (8015)	PCB/PAH/SVOC's (8270)	TPH (418.1)	METALS (6010)		COMMENTS
									G	HCl	DI	MEOH						
6/23	1010	JAX45-DPT22-60-06232011				GW	G	3	3									Cool to 4°C
6/23	1025	JAX45-DPT22-40-06232011				GW	G	3	3									
6/23	1040	JAX45-DPT22-20-06232011				GW	G	3	3									
6/23	1055	JAX45-DPT22-12-06232011				GW	G	3	3									
6/24	0840	JAX45-SB05-SB-06242011				Soil	G	7	X	3	1	1	1	1				
6/24	0855	JAX45-SB06-SB06242011						7	X	3	1	1	1	1				
	0910	JAX45-SB07-SB06242011						7	X	3	1	1	1	1				
	0930	JAX45-SB08-SB-06242011						7	X	3	1	1	1	1				
	0955	JAX45-SB09-SB-06242011						7	X	3	1	1	1	1				
	1020	JAX45 SB10-SB-06242011						7	X	3	1	1	1	1				
	1035	JAX45-SB11SB-06242011						7	X	3	1	1	1	1				
	1055	JAX45-SB12SB-06242011						7	X	3	1	1	1	1				
↓	0800	JAX45-DUP01-06242011				↓	↓	7	X	3	1	1	1	1				

1. RELINQUISHED BY	DATE 6/24/2011	TIME 1530	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2270 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(864) 636-6125	KATAHDIN ANALYTICAL SERVICES INC
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		ZACH SCRIBNER	(704) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE
				SCARBOROUGH ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOC	VOC	PCB/PAH/SVOC (4oz)	TRPH (4oz)	METALS (4oz)	VOC (40ml)			COMMENTS
		CONTAINER TYPE PLASTIC (P) or GLASS (G)							G	G	G	G	G	G			
		PRESERVATIVE USED							DI	MEOH	/	/	/	HCl			
6/24	1125	JAX45-SB13-SB-06242011	(*)			Soil	G	21	9	3	3	3	3				(*) - INDICATES
6/24	1135	JAX45-SB14-SB-06242011				Soil	G	7	3	1	1	1	1				MS/MSD
																	- cool to 4°C
6/24	1205	JAX45-SBRINSATE-06242011				QC	G	3	0	0	0	0	0	3			
6/24	1210	TB-03				QC	-	4	3	1				0			
6/24	1215	TB-04				QC	-	2						2			

1. RELINQUISHED BY	DATE 6/24/2011	TIME 1530	1. RECEIVED BY	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
COMMENTS					

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

112G01571 PSC 45 - BLDG 200 15, JUNE 2011

PERSONNEL: Z. SCRIBNER; A. PATE; D. BURTON (PD); J. CHANEY (PD)
VEHICLE: P.O.U.
PPE: LEVEL "D"
WEATHER: ARRIVAL: 90°F; HUMID; VISIBILITY IS ¼ mile DUE TO DENSE SMOKE FROM FOREST FIRES
DEPARTURE: 95° HUMID; VISIBILITY ½ - 2 mi
OBJECTIVE: IN SURROUNDING AREAS of BUILDING 200 OBTAIN LITHOLOGY DATA VIA USE OF DPT DRILL RIG.

0630 ZS ARRIVED AT TETRATECH (TT) OFFICE AND LOADED TRUCK WITH SUPPLIES.

0700 ZS DEPARTED TT OFFILE FOR NAS JAX TO MEET T. CURTAIN AND ESCORT DRILLERS TO THE SITE.

0730 ES ARRIVED AT THE NAS JAX COMMERCIAL GATE

0745 ZS MET T. CURTAIN AT ENTRANCE. ZS + TC AWAITED THE ARRIVAL OF DRILLERS

0820 DRILLERS/PROBEDOMAIN ARRIVED AT COMMERCIAL GATE AND ACQUIRED THEIR DAY PASSES

0905 ZS ESCORTED PROBEDOMAIN (PD) TO BLDG 200; PERFORMED DRILL RIG INSPECTION AND HELD H+S MEETING.

1000 PD BEGAN DRILLING ON THE NORTH SIDE OF BLDG 200 AT MID-BLDG, TO ACQUIRE LITHOLOGY DATA TO A DEPTH OF 65 ft. COORDINATES FOR SOIL LITHOLOGY BORING (SBL)* 01 ARE: (SB-01): SLB-01
NOTE PD HAND AUGERED TO 5' AND USED 5' DPT RODS w/ INTERNAL PLASTIC LINERS TO OBTAIN REMAINING INTERVALS. - SEE NEXT PAGE + TABLE, FOR LITHOLOGY INFO. -

1220 - PD DEPARTED SITE FOR LUNCH; PD LEFT RODS IN GROUND AT 50' (TO COLLECT LITHOLOGY DATA FOR 45'-50' INTERVAL AFTER LUNCH)* WEATHER: 104°F, SMOKEY VISIBILITY AT ½ to ¾ mi

1320 PD RETURNED TO SITE AND RESUMED OPERATIONS

1430 *AMBIENT TEMP IS 108° (VIA P.O.U. THERMOMETER), NO BREEZE; SUNNY AND SMOKEY; CREW TOOK 10 MIN HYDRATION BREAK. (HIGH TEMP w/ NO BREEZE MAY BE ATTRIBUTED TO AREA OF WORK: ASPHALT SURFACE BETWEEN TWO TALL BLDGS [BLDG 200 + HANGARS] THAT ARE RESONATING HEAT.)

1615 COLLECTED LAST LITHOLOGY BORING DATA; BEGAN SITE CLEAN UP

1645 PD RECEIVED APPROVAL TO LEAVE TRAILER IN PARKING AREA NORTH OF BLDG 168. PD + ZS DEPARTED SITE.

1700 PD + ZS DEPARTED BASE; ZS DEPARTED FOR TT OFFICE

1730 ZS ARRIVED AT TT OFFICE AND UNLOADED SUPPLIES THAT WILL NOT BE NEEDED FOR THE REMAINDER OF THE WEEK.

NAS JAX

LLQG01511

PSC #45 BLDG 200

15, JUNE 2011

LOCATION: SLB101

SCREENED INTERVAL	DEPTH (FT.)	COLOR	MATERIAL CLASSIFICATION
0	+0.5' to 0'	—	ASPHALT
1	0' to -1'	DK BRN.	SILTY SAND; DRY
	-1' to -5'	LT. BRN.	FINE SAND; DRY
2	-5 to -7'	LT. BRN	FINE SAND; WET
	-7' to -10'	LT. GRAY	FINE SAND; WET
3	-10' to -12'	LT. GRAY	FINE SAND; WET
	-12' to -15'	MED. GRAY	CLAY; FINE SAND; WET (MAINLY CLAY)
4	-15' to -19'	LT. BRN + LT. GRAY MARBLED	CLAY; FINE SAND; WET (MAINLY CLAY)
	-19' to -20'	LT. MED. GRAY	CLAY, FINE SAND; WET (MAINLY CLAY)
5	-20' to -23'	MED-LT MED-LT GRAY	CLAY, FINE SAND; WET (MAINLY CLAY)
	-23' to -25'	LT. GRAY	FINE SAND w/CLAY; WET (MAINLY SAND)
6	-25' to -30'	LT. GRAY	FINE SAND w/CLAY; WET (" ")
7	-30 to -35'	LT. GRAY	FINE SAND w/CLAY; WET (" ")
8	-35 to -38'	LT. GRAY	FINE SAND w/CLAY; WET (" ")
	-38 to 40'	LT. BRN (ORANGISH)	FINE SAND w/CLAY; WET (" ")
9	-40' to -45'	DK. GRAY	FINE SAND; WET
10	-45' to -50'	DK. GRAY	FINE SAND; WET
11	-50' to -55'	DK. GRAY	FINE SAND; WET
12	-55' to 60'	DK. GRAY	FINE SAND; WET
13	-60' to -64.5'	DK GRAY	FINE SAND; WET; * HARD PACKED AT 63-64.5'
	-64.5' to -65'	LT. GRAY	FINE SAND; WET
14	-65' to 70'	DK GRAY	FINE SAND; WET; LINER + SAND STUCK IN ROD POUNDED SAND INTO A PILE ON VISQUEEN

GPS: N/E

653378.63 / 135053.06

25

06/15/11

7.151

112G01511 NFA JTF PSC-45 : BLDG 200 16 JUNE, 2011

PERSONNEL: Z. SCRIBNER (ZS) (TT); D. BURTON (PB); J. CHANEY (PB)
VEHICLE: P.O.V.
PPE: LEVEL "D"
WEATHER: ARRIVAL - 73°F, OVERCAST; CHANCE OF THUNDERSTORMS
DEPARTURE
OBJECTIVE: OBTAIN LITHOLOGY DATA VIA USE OF DPT DRILL RIG AT BLDG 200.

0630 ZS ARRIVED ON BASE AT COMMERCIAL GATE

0650 ZS MET PB PD + T. CURTAIN AT GATE; STOOD IN LINE TO GIE PASS; *WEATHER UPDATE* - BEGAN TO RAIN AND STORM CELL APPEARED TO HAVE GROWN AND SLOWED DOWN FROM IMAGES OBSERVED EARLIER THIS MORNING (0530)

0730 - ZS, PD, + TC WERE INSTRUCTED BY COMMERIAL GATE POLICE THAT THEY COULD GO TO THE MAIN GATE TO GET A PASS * STILL RAINING *

0745 ARRIVED AT MAIN GATE OFFICE, PD WAS INSTRUCTED BY BADGING OFFICE THAT THEY WERE ABLE TO PICK UP A NEW PASS AT THE MAIN OFFICE EVERY MORNING INSTEAD OF THE COMMERCIAL GATE

0805 ZS + PD ARRIVED ONSITE AT BLDG 200
* STILL RAINING; APPROXIMATELY 1/2" to 3/4" RAIN COLLECTED IN PRINGLES CAN ON BACK OF ZS's TRUCK * SLB-02 IS VISUALY HIGHER THAN SLB-01 * (INTERMS OF ALTITUDE)

0825 - RAIN DECREASED TO A LIGHT DRIZZLE; PD setup AT SOIL LITHOLOGY BORING LOCATION 02 (COORDINATES FOR SLB-02:

0830 PD HAND AUGERED TO A DEPTH OF 6' TO GET BELOW LAYERS CONTAINING ROCKS AND ORGANIC DEBRIS. *

0840 PD BEGAN PUSHING RODS; * RAIN STOPPED, STILL OVERCAST * - SEE NEXT PAGE FOR ZS LITHOLOGY DATA FOR SLB-02 .-

1230 PD DEPARTED SITE FOR LUNCH; SLB-02 COMPLETED (WILL BEGIN SLB-03 AFTER BREAK) * WEATHER: SUNNY CLEAR 100°F

1345 PD RETURNED FROM BREAK; ZS COMPLETED HAND AUGERING TO 5' AT SLB-03 (COORDINAES FOR SLB-03:
- SEE NEXT TWO PAGES FOR LITHOLOGY DATA FOR SLB-02 AND SLB-03 RESPECTIVELY

1630 - SLB-03 WAS COMPLETED; PD BEGAN CLEAN UP AT SITE + MOBILIZED DPT RIG TO STORAGE TRAILER ONSITE.

1700 ZS + PD DEPARTED BASE; ZS

1128G0 1611 PSC 45- BLDG 800 16 JUNE, 2011

LOCATION: SLB-02

GPS: N/E
653325.95 / 135132.55

SCREENED INTERVAL	DEPTH (FT)	COLOR	MATERIAL CLASSIFICATION
0	0'	—	GRASS/TOPSOIL
1	0' to -0.5'	LT. GRAY	SILTY, ROCK FINE SAND; DRY
	-0.5' to -4.5'	DK. GRAY	SILTY, ROCKY FINE SAND; DRY
	-4.5' to -6'	LT BRN	SILTY FINE SAND; WET + DRY
2	-6' to -7'	DK GRAY	SILTY FINE SAND; WET
	-7' to -9'	DK BRN	FINE SAND; WET
	-9' to -10'	LT. BRN	FINE SAND; WET
3	-10' to -12'	LT. BRN	FINE SAND; WET
	-12' to -15'	LT GRAY	CLAY w/ FINE SAND; WET
4	-15' to -20'	LT. GRAY	CLAY w/ FINE SAND; WET
5	-20' to -25'	LT. GRAY	CLAY w/ FINE SAND; WET
6	-25' to -30'	LT GRAY	FINE SAND w/ CLAY; WET
7	-30' to -35'	LT. GRAY	FINE SAND w/ CLAY; WET
8	-35' to -40'	LT GRAY	FINE SAND w/ CLAY; WET
9	-40' to -41'	LT GRAY	FINE SAND w/ CLAY; WET
10	-41' to -43'	LT. BROWN	FINE SAND w/ MINIMAL CLAY; WET
	-43' to -45'	DK. GRAY	FINE SAND; WET
10	-45' to -50'	DK GRAY	FINE SAND; WET
11	-50' to -55'	DK GRAY	FINE SAND; WET
12	-55' to -60'	DK GRAY	FINE SAND; WET
13	-60' to -65'	DK GRAY	FINE SAND; WET
14	-65' to -70'	DK GRAY	FINE SAND; WET

06/16/11

6 of 8

	CPT		CLASSIFICATION
0	0'	—	GRAY/SILTY SAND; Rocky; DRY
1	0' to -0.5'	DK GRAY	SILTY FINE SAND, ROCKS; DRY
	-0.5' to -3'	LT GRAY	SILTY FINE SAND, Rocky, DRY
	-3 to -4	DK. BRN	SILTY FINESAND; DRY
	-4 to -5	LT. BRN	SILTY FINE SAND; DRY
2	-5' to -10'	LT. BRN	SILTY FINE SAND; DRY+WET
3	-10' to -11.5'	LT. BRN	SILTYFINE SAND; WET
	-11.5' to -14'	LT. GRAY	SILTY FINE SAND; WET
	-14' to -15'	LT. GRAY	CLAY + FINE SAND
4	-15' to -20'	LT. GRAY	CLAY + FINE SAND; COMPACT
5	-20' to -23'	LT. GRAY	CLAY + FINESAND; COMPACT
	-23' to -25'	LT GRAY + LT. BRN	CLAY + FINE SAND (50/50)
6	-25' to -30'	LT. GRAY	FINE SANDY CLAY; (mostly Sand)
7	-30' to -36'	LT. GRAY	FINE SANDY CLAY
8	-36' to -40'	LT. GRAY	FINE SANDY CLAY
9	-40' to -41.5'	LT. GRAY	FINE SANDY CLAY
~~10~~	-41.5 to -45	LT. BRN (ORANGISH)	FINESANDY CLAY
10	-45 to -50	LT. BRN	FINESANDY
11	-50' to -55'	DK. GRAY	FINE SAND
12	-55' to -60'	DK. GRAY	FINESAND
13	-60' to -66'	DK. GRAY	FINE SAND
14	-66' to -70	DK. GRAY	FINE SAND

053311.37 / 135056.77

06/16/11

1126015 11 — PSC 45 - BLDG 200 — 17 JUNE, 2011

PERSONNEL: Z. SCRIBNER (TT); D. BURTON (PD); JASON REINHART (PD)
VEHICLE: P.D.V.
PPE: LEVEL "D"
WEATHER: 83°F; SMOKEY, VISIBILITY ≈ ½ to ¾ MI
OBJECTIVE: OBTAIN SOIL LITHOLOGY DATA AT BLDG 200 VIA DPT DRILL RIG.

0630 - ZS ARRIVED ON BASE AT MAIN (YORKTOWN) GATE BADGING OFFICE AND STOOD IN LINE FOR PD'S BASE ACCESS;

0645 - ZS MET PD AT MAIN GATE

0720 ZS + PD WERE CALLED TO BADGING WINDOW AND BEGAN AQUIRING BASE ACCESS PASSES FOR THE DAY.

0800 PD AQUIRED PASSES; ZS + PD MOBILIZED TO BLDG 200.

0815 ZS HELD TAILGATE SAFETY MEETING

0830 ZS RECEIVED APPROVAL FROM NIELSON TO ENTER GATED AREA ON WEST SIDE OF BUILDING 200

0850 PD SET UP AT SOIL LITHOLOGY BORING LOCATION #04 (SLB-04) AND BEGAN AQUIRING DATA. ~SEE TABLE ON NEXT PAGE FOR ZS MORE LITHOLOGY DATA~

1240 PD COMPLETED BORING AT SLB-04; BEGAN CLEAN UP + MOBILIZED TO STORAGE TRAILER; PATCHED HOLE IN ASPHAULT.

1300 PD REMOVED TRAILER FROM SITE + BASE AT DEPARTURE.

1315 ZS + PD OFF BASE

06/17/11

1126025II

FSC 45 - BLDG 20

17 JUNE 2011

LOCATION: SLB-04

GPS: N/E
653346.30 / 134988.07

SCREENED INTERVAL	DEPTH (FT)	COLOR	MATERIAL CLASSIFICATION
0	+2" to 0'	—	ASPHALT
1	0' to -2'	LT. GRAY	FINE SAND Y, DRY. SILT
	-2' to -2.5'	DK BRN	FINE SAND Y SILT: DRY
	-2.5 to -3.5	LT. BRN	FINE SAND + SILT ; DRY
	-3.5 to -5	LT. GRAY	FINE SAND : DRY
2*	-5 to -10	LT. GRAY	FINE SAND : WET (Minimum clay)
3*	-15 to -20	LT. GRAY	FINE SAND + CLAY; WET
4	-20 to -21	LT. GRAY	FINE SAND + CLAY ; WET
	-21 to -24	LT. BRN	CLAY + FINE SAND; WET
	-24 to -24.25	DK BRN	CLAY + FINE SAND (HARD PACKED)
	-24.25 to -25'	LT GRAY	CLAY + FINE SAND
5	-25' to -30'	LT. GRAY	CLAY FINE SANDY CLAY
6	-30' to -35'	LT. GRAY	FINE SAND
	-35' to -35.5'	LT BRN	FINE SAND
7	-35.5' to -40'	LT GRAY	FINE SAND
8	-40' to -41'	LT GRAY	FINE SAND
	-41' to -44.5'	LT. BRN (ORANGISH)	FINE SAND
	-44.5' to -45'	DK GRAY	FINE SAND
9	-45' to -50'	DK. GRAY	FINE SAND
10	-50' to -55'	DK GRAY	FINE SAND
11	-55' to -60'	DK GRAY	FINE SAND
12	-60' to -65'	DK GRAY	FINE SAND
13	-65' to -70'	DK GRAY	FINE SAND

*NOTE: INTERVAL -10 to -15 WAS LT. GRAY FINE SAND + CLAY

06/17/11

112G01511

NAS JAX
FSC 45 - BLDG 200

20 JUNE 2

PERSONNEL: Z. SCRIBNER (TT); A. PATE (TT)
D. BURTON (PD)

VEHICLE: P.O.V.

PPE: LEVEL "D"

WEATHER: CLEAR; HUMID 83°F ~ARRIVAL;

OBJECTIVE: OBTAIN SOIL SAMPLES NEAR WASHRACK AT BLDG200 ~~AND~~ AND BEGIN COLLECTING DPT GW SAMPLES

0600 ZS ARRIVED AT TETRA TECH (TT) OFFICE; LOADED TRUCK W/SUPPLIES AND BOTTLE WARE AND DEPARTED TT OFFICE FOR NAS JAX.

0640 ZS ARRIVED ONBASE AT COMMERCIAL GATE AND; AWAITED ARRIVAL OF PROBE DOMAIN (PD); STOOD IN LINE.

0720 DB (PD) ARRIVED AT GATE; STOOD IN LINE

0735 ZS + DB WERE TOLD BY COMMERCIAL GATE BADGING THAT DB NEEDS A RAPIDGATE OR WORK ORDER; ZS CALLED T. CURTAIN FOR HELP GETTING DB BASE ACCESS.

0740 T. CURTAIN ARRIVED AT COMMERCIAL GATE; ZS, DB, AND TC WERE INSTRUCTED TO GO TO THE END OF THE LINE.

0755 DB WAS CALLED TO BADGING WINDOW AND WAS DENIED ACCESS DUE TO EXPIRED REGISTRATION AND INSURANCE.

0800 DB CALLED HIS BOSS AND BEGAN SEARCHING THE VEHICLE FOR UPDATED VEHICLE CREDENTIALS; DB FOUND CREDENTIALS ON STOOD IN LINE AT BADGING (COMMERCIAL)

0830 DB CALLED/CONTACTED ZS AND INFORMED ZS HE WAS UNABLE TO GET IN WITHOUT A WORK PERMIT; ZS CONTACTED T.C.; TC SAID HE WOULD MEET DB AT THE COMMERCIAL GATE; DB WAS INSTRUCTED TO GO TO THE END OF THE LINE.

0920 DB MET ZS AT BLDG 200

0935 DB SET UP RIG AT DPT-12 AND BEGAN BUSTING THRU ASPHALT - SEE NEXT PAGE FOR DPT WATER SAMPLING INFORMATION

1115 ZS + DB COMPLED DPT-GW SAMPLING AT DPT-12 LOCATION AND DEPARTED SITE FOR LUNCH

1150 ZS + DB RETURNED TO SITE; MOBILIZED TO DPT GW LOCATION DPT-13 AND RESUMED DPT GW SAMPLING PROCEDURES

1230 ZS CONTACTED M. PERKINS AT KATAHDIN LABS TO CHECK ON WORKLOAD OF LAB AND RECEIVED CONFIRMATION TO SHIP VOC'S COLLECTED TODAY (6/20) WITH ALL REMAINING SAMPLES TO BE COLLECTED TOMORROW (6/21).

1410 ZS + DB MOBILIZED FROM DPT-13 TO DPT-14; MET AP; AP CHECKED ON SOIL SAMPLE LOCATIONS - SAMPLES SCHEDULED TO BE COLLECTED TOMMORROW (6/21)

1615 ZS + DB COMPLETED DECON + CLEAN UP AT DPT-14; DB DROVE DPT RIG TO TRAILER; LEFT TRAILER ON SITE

1630 ZS + DB OFF BASE; ZS DEPARTED TO TT OFFICE

Tolson

1126025111

NAS JAX
PSC 45 - BLDG 208

20 June 2011

SAMPLE LOCATION	SAMPLE I.D.	SAMPLE DEPTH (ft)	SAMPLE TIME	ANALYSIS	COMMENTS
DPT-12	JAX45-DPT12-60-06202011	60'-64'	1030	VOC's	GPS: N/E 653362.52/135197.09
	JAX45-DPT12-40-06202011	40'-44'	1045	"	
	JAX45-DPT12-20-06202011	20'-24'	1055	"	
	JAX45-DPT12-12-06202011	12'-16'	1110	"	
DPT-13	JAX45-DPT13-60-06202011	60'-64'	1315	"	N/E 653384.34/135105.92
	JAX45-DPT-13-40-06202011	40'-44'	1325	"	
	JAX45-DPT13-20-06202011	20'-24'	1345	"	
	JAX45-DPT13-12-06202011	12'-16'	1355	"	
DPT-14	JAX45-DPT14-60-06202011	60'-64'	1506	"	GPS N/E 653386.76/134992.81
	JAX45-DPT14-40-06202011	40'-44'	1520	"	
	JAX-45-DPT14-20-06202011	20'-24'	1530	"	
	JAX45-DPT14-12-06202011	12'-16'	1545	"	
DUP-01*	JAX45-DPT-DUP01-12-06202011	12'-16'	0000	"	

* DUP-01 COLLECTED AT DPT-14

1650 ZS ARRIVED AT TT OFFICE; UNLOADED SUPPLIES + EQUIPMENT FROM P.O.V.

06/20/11

112 G01511

PSC45 - BLDG 200

SAMPLE LOCATION	SAMPLE I.D.	SAMPLE DEPTH (ft bgs)	SAMPLE TIME	ANALYSIS
DPT-15	JAX45-DPT15-60-06212011	60'-64'	1000	VOC's
	JAX45-DPT15-40-06212011	40'-44'	1015	"
	JAX45-DPT15-20-06212011	20'-24'	1025	"
	JAX45-DPT15-12-06212011	12'-16'	1030	"
DPT-16	JAX45-DPT16-60-06212011	60'-64'	1145	"
	JAX45-DPT16-40-06212011	40'-44'	1200	"
	JAX45-DPT16-20-06212011	20'-24'	1210	"
	JAX45-DPT16-12-06212011	12'-16'	1215	"
DPT-17	JAX45-DPT17-60-06212011	60'-64'	1405	"
	JAX45-DPT17-40-06212011	40'-44'	1420	"
	JAX45-DPT17-20-06212011	20'-24'	1430	"
	JAX45-DPT17-12-06212011	12'-16'	1435	"
DPT-18	JAX45-DPT18-60-06212011	60'-64'	1545	"
	JAX45-DPT18-40-06212011 *	40'-44'	1600	"
	JAX45-DPT18-20-06212011	20'-24'	1610	"
	JAX45-DPT18-12-06212011	12'-16	1620	"
DUP-02*	JAX45-DPT-DUP02-40-06212011	40-44'	[illegible]	"

~(*) DUP-02 taken AT DPT-18 40'-44' ~

GPS: N/E

DPT-15: 653315.60 / 135012.66

DPT16 653317.45 / 135062.48

DPT-17 653317.80 / 135109.06

DPT-18 653302.70 / 135139.02

06/21/11

2/15

112G0/511 ASC 45 - BLDG 200 22 JUNE, 20

PERSONNEL: Z. SCRIBNER (TT); D. BURTON (PD);
VEHICLE: P.O.V.
PPE: LEVEL "D"
WEATHER: ARRIVAL @ 81°F SUNNY SMOKEY
OBJECTIVE: OBTAIN ADDITIONAL DPT GW SAMPLES + SOIL SAMPLES NEAR WASHRACK AT BLDG 200

0625 - ZS DEPARTED TT OFFICE W/ SUPPLIES AND EQUIPMENT FOR NEX JAX
0645 - ZS ARRIVED ON SITE AT JAX. BEGAN FILLING OUT PAPERWORK AND LABELS FOR BOTTLE WARE.
0730 ZS MET DB ONSITE + MOBILIZED TO DPT-19; DECON'D RODS
0900 DPT-19 LOCATION AND AREAS SURROUNDING THE LOCATION WERE DENSELY PACKED WITH LARGE ROCKS BLS (BELOW LAND SURFACE); 2" HAND AUGER TO 5' TOOK LONGER THAN ANTICIPATED
0910 DB REACHED ROCKLESS FINE SAND LAYER APPROX. 2' BLS;
0920 HAND AUGERING TO 6' BLS COMPLETED; BEGAN PUSHING RODS AT DPT-19
~SEE TABLE ON NEXT PAGE FOR DPT GW INFORMATION~
1040 DB COMPLETED WORK AT DPT-19; DECON'D AND MOBILIZED TO DPT-20
1100 DB BEGAN HAND AUGERING AT DPT-20
1105 DB BEGAN PUSHING RODS AT DPT-20
1235 DB + ZS COMPLETED WORK AT DPT-20; DECON'D RODS, MOBILIZED TO DPT-21 ~~AND BROKE FOR LUNCH~~
1310 ZS + DB BROKE FOR LUNCH
1405 ZS + DB RETURNED TO SITE AT DPT-21 AND RESUMED WORK; DB HAND AUGERED TO 6ft. AND BEGAN PUSHING RODS
1605 ZS+DB COMPLETED WORK AT DPT-21; BEGAN SITE CLEANUP AND DECON'D RODS
1650 SITE WAS CLEAN AND SECURE DB + ZS DEPARTED SITE (BASE)
~~1700~~ ZS ARRIVED AT FEDEX TO SHIP SAMPLES COC's # 2267 + 2268
1740 ZS ARRIVED AT TT OFFICE; UNLOADED SUPPLIES AND EQUIPMENT

06/22/11

1/2 GO1671

NAS JAX
PSC 45- BLDG 200

22 JUNE 201

SAMPLE LOCATION	SAMPLE I.D.	SAMPLE DEPTH (FT.)	SAMPLE TIME	ANALYSIS	COMMENTS
DPT-19	JAX45-DPT19-60-06222011 *	60'-64'	0945	VOC's	GPS: NIE 653313.62 / 134934.44
	JAX45-DPT19-40-06222011 *	40'-44'	1005	"	
	JAX45-DPT19-20-06222011 **	20'-24'	1020	"	
	JAX45-DPT19-12-06222011	12'-16'	1035	"	
DUP-03	JAX45-DPT-DUP03-40-06222011 *	40'-44'	0000	"	
DPT-20	JAX45 DPT20-60-06222011	60'-64'	1150	"	GPS: NIE 653348." / 134982.27
	JAX45-DPT20-40-06222011 **	40'-44'	1205	"	
	JAX45DPT20-20-06222011	20'-24'	1220	"	
	JAX45DPT20-12-06222011	12'-16'	1235	"	
DUP-04	JAX45-DPT-DUP04-40-06222011 **	40'-44'	XXXX	"	
DPT-21	JAX45-DPT21-60-06222011	60'-64'	1520	"	GPS: NIE 653387.66 / 135032.70
	JAX45-DPT21-40-06222011	40'-44'	1535	"	
	JAX45-DPT21-20-06222011	20'-24'	1550	"	
	JAX45-DPT21-12-06222011	12'-16'	1605	"	

6/23/11

112G0151 — PSC 45 · BLDG 200 — 23 JUNE, 2011

PERSONNEL: Z. SCRIBNER (TT), D. BURTON (PD)
VEHICLE: P.O.V.
PPE: LEVEL "D"
WEATHER: SUNNY, SMOKEY 84°F. ARRIVAL;
OBJECTIVE: OBTAIN DPT GW SAMPLES AND PUNCH HOLES FOR SOIL COLLECTION & SAMPLE COLLECTION -

0640 ZS DEPARTED TT OFFICE FOR NAS JAX
0900 ZS ARRIVED ON BASE AT BLDG 200
0730 ZS MET DB ONSITE AND HELD TAILGATE SAFETY MEETING
0800 ZS AND DB BEGAN PUNCHING HOLES IN ASPHALT W/DPT RIG NEAR BLDG 200 WASH RACK
0900 DB COMPLETED PUNCHING/HOLES IN ASPHALT; MOBILIZED TO DPT-22 AND BEGAN DRIVING RODS.
~SEE TABLE BELOW FOR SAMPLE COLLECTION INFORMATION.~

SAMPLE LOCATION	SAMPLE I.D.	SAMPLE DEPTH (FT)	SAMPLE TIME	ANALYSIS	COMMENTS/GPS (N/
DPT-22	JAX45-DPT22-60-06232011	60'-64'	1010	VOC's	GPS: N/E 653369.48/135132.40
	JAX-45-DPT22-40-06232011	40'-44'	1025	"	
	JAX45-DPT22-20-06232011	20'-24'	1040	"	
	JAX45-DPT22-12-06232011	12'-16'	1055	"	

1055 DB + ZS CLEANED SITE; LOADED UP PD TRAILER
1145 - DB DEPARTED SITE
1205 - ZS DEPARTED SITE FOR TT OFFICE
1240 - ZS ARRIVED AT TT OFFICE
1430 ZS PACKED COOLER FOR SHIPMENT COC # 2270 + 2269
1530 FEDEX PICKED COOLER UP FROM TT OFFICE; ZS RELINQUISHED COOLER

ZS 06/03/11

PERSONNEL: Z. SCRIBNER (TT) 27 JUNE
VEHICLE: P.O.V.
PPE: LEVEL "D"
WEATHER: ARRIVAL - CLEAR 81°F
OBJECTIVE: OBTAIN SOIL SAMPLES NEAR BLDG 280 WAS

0715 - ZS DEPARTED TT OFFICE
0740 ZS ARRIVED ON BASE / ON SITE; SET UP DECON STATION AND SET SAMPL
ASIDE PER BORING; HAND AUGERED TO CHECK DEPTH TO WATER ≈ 4.5'
0820 ZS BEGAN HAND AUGERING TO COLLECT SAMPLES ~SEE TABLE BELOW FOR SAMPLE COLLECTION INFORMATION.~

SAMPLE LOCATION	SAMPLE I.D.	SAMPLE TIME	SAMPLE INTERVAL	ANALYSES 1, 2, 3, 4	GPS LOCATION N / E
SB-05	JAX-45-SB05-SB-06242011	0840	0.5'-2.5'	1, 2, 3, 4	653355.17 / 135012.38
SB-06	JAX-45-SB06-SB-06242011	0855			653355.45 / 135015.84
SB07	JAX45-SB07-SB-06242011	0910			653358.04 / 135015.21
SB-08	JAX-45-SB08-SB-06242011	0930			653361.57 / 135014.96
SB-09	JAX45-SB09-SB-06242011	0955			653394.73 / 135015.27
SB-10	JAX45-SB10-SB-06242011	1020			653364.93 / 135011.10
SB-11	JAX45-SB-11-SB-06242011	1035			653364.75 / 135009.00
SB-12	JAX45-SB12-SB-06242011	1055			653361.57 / 135009.09
SB-13	JAX45-DUP01-06242011	0000			" "
SB-14	JAX45-SB13-SB-06242011 (*)	1125			653358.04 / 135010.14
	JAX45-SB14-SB-06242011	1155			653353.43 / 135010.17

(*) INDICATES MS/MSD ; 1= VOC ; 2= PCB/PAH/SVOCs ; 3= TRPH ; 4= METALS

1205 - ZS TOOK RINSATE FROM DECON'D EQUIPMENT ; PUT IDW INTO DRUM AND CONTINUED SITE CLEANUP
1245 ZS DEPARTED SITE FOR TT OFFICE
1320 ZS ARRIVED AT TT OFFICE ; PACKED COOLERS W/SAMPLES FROM 6/23 & 6/24 ; COC's 2269, 2270.
1530 FED EX ARRIVED AT TT OFFICE ZS RELINQUISHED CUSTODY

ZS 06/24/11

6/29

APPENDIX B

USGS REPORT

GROUND-WATER HYDROLOGY AND SIMULATION OF GROUND-WATER FLOW AT OPERABLE UNIT 3 AND SURROUNDING REGION, U.S. NAVAL AIR STATION, JACKSONVILLE, FLORIDA
BY J. HAL DAVIS, USGS 1998

Ground-Water Hydrology and Simulation of Ground-Water Flow at Operable Unit 3 and Surrounding Region, U.S. Naval Air Station, Jacksonville, Florida

By J. Hal Davis

U.S. GEOLOGICAL SURVEY

Open File Report 98-68

Prepared in cooperation with the

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION,
NAVAL FACILITIES ENGINEERING COMMAND

Tallahassee, Florida
1998

U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY
Thomas J. Casadevall, Acting Director

For additional information write to:

District Chief
U.S. Geological Survey
227 North Bronough Street
Tallahassee, FL 32301

Copies of this report can be purchased from:

U.S. Geological Survey
Branch of Information Services
Box 25286
Federal Center
Denver, CO 80225

CONTENTS

Figures

Tables

CONVERSION FACTORS, VERTICAL DATUM, ABBREVIATIONS, AND ACRONYMS

Multiply	By	To obtain
inch (in.)	2.54	centimeter
inch per year (in/yr)	2.54	centimeter per year
foot (ft)	0.3048	meter
foot per day	0.3048	meter per day
foot squared per day (ft^2/d)	0.09290	meter squared per day
foot per year (ft/yr)	0.3048	meter per year
cubic foot per second (ft^3/s)	0.02832	cubic meter per second
gallon (gal)	0.003785	cubic meter
gallon (gal)	.785	liter
gallon per minute (gal/min)	0.06309	liter per second
million gallons per day (Mgal/d)	0.04381	cubic meter per second
gallon (gal)	3.785	liter
mile (mi)	1.609	kilometer
acre	4,047	square meter

Temperature in degrees Fahrenheit (°F) may be converted to degrees Celsius (°C) as follows:

$$°C=(°F-32)/1.8$$

Sea level: In this report, “sea level” refers to the National Geodetic Vertical Datum of 1929-- a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Acronyms

ABB-ES	ABB Environmental Services, Inc.
MODFLOW	Modular Three-Dimensional Finite-Difference Ground-Water Flow Model
OU1	Operable Unit 1
OU3	Operable Unit 3
Station	Naval Air Station
USEPA	U. S. Environmental Protection Agency
USGS	U.S. Geological Survey

Ground-Water Hydrology and Simulation of Ground-Water Flow at Operable Unit 3 and Surrounding Region, U.S. Naval Air Station, Jacksonville, Florida

By J. Hal Davis

Abstract

The Naval Air Station, Jacksonville (herein referred to as the Station,) occupies 3,800 acres adjacent to the St. Johns River in Duval County, Florida. Operable Unit 3 (OU3) occupies 134 acres on the eastern side of the Station and has been used for industrial and commercial purposes since World War II. Ground water contaminated by chlorinated organic compounds has been detected in the surficial aquifer at OU3. The U.S. Navy and U.S. Geological Survey (USGS) conducted a cooperative hydrologic study to evaluate the potential for ground water discharge to the neighboring St. Johns River. A ground-water flow model, previously developed for the area, was recalibrated for use in this study.

At the Station, the surficial aquifer is exposed at land surface and forms the uppermost permeable unit. The aquifer ranges in thickness from 30 to 100 feet and consists of unconsolidated silty sands interbedded with local beds of clay. The low-permeability clays of the Hawthorn Group form the base of the aquifer.

The USGS previously conducted a ground-water investigation at the Station that included the development and calibration of a 1-layer regional ground-water flow model. For this investigation, the regional model was recalibrated using additional data collected after the original calibration. The recalibrated model was then used to establish the boundaries for a smaller subregional model roughly centered on OU3.

Within the subregional model, the surficial aquifer is composed of distinct upper and intermediate layers. The upper layer extends from land surface to a depth of approximately 15 feet below sea level; the intermediate layer extends from the upper layer down to the top of the Hawthorn Group. In the northern and central parts of OU3, the upper and intermediate layers are separated by a low-permeability clay layer. Horizontal hydraulic conductivities in the upper layer, determined from aquifer tests, range from 0.19 to 3.8 feet per day. The horizontal hydraulic conductivity in the intermediate layer, determined from one aquifer test, is 20 feet per day.

An extensive stormwater drainage system is present at OU3 and the surrounding area. Some of the stormwater drains have been documented to be draining ground water from the upper layer of the surficial aquifer, whereas other drains are only suspected to be draining ground water.

The subregional model contained 78 rows and 148 columns of square model cells that were 100 feet on each side. Vertically, the surficial aquifer was divided into two layers; layer 1 represented the upper layer and layer 2 represented the intermediate layer. Steady-state ground-water flow conditions were assumed. The model was calibrated to head data collected on October 29 and 30, 1996. After calibration, the model matched all 67 measured heads to within the calibration criterion of 1 foot; and 48 of 67 simulated heads (72 percent) were within 0.5 foot.

Model simulated recharge rates ranged from 0.4 inch per year in areas that were largely paved to 13.0 inches per year in irrigated areas. Simulated hydraulic conductivities in the upper layer at OU3 ranged from 0.5 foot per day in the north to 1.0 foot per day in the south. Simulated vertical leakance between the upper and intermediate layers ranged from $1.0x10^{-6}$ per day in an area with low-permeability clays to $4.3x10^{-2}$ per day in an area that had been dredged. Simulated transmissivities in the intermediate layer ranged from 25 feet squared per day in an area of low-permeability channel-fill deposits to a high of 1,200 feet squared per day in areas covering most of OU3. Simulated riverbed conductances ranged from 4 to 60 feet squared per day and simulated bottom conductances of leaking stormwater drains ranged from 5 to 20 feet squared per day.

The direction and velocity of ground-water flow was determined using particle-tracking techniques. Ground-water flow in the upper layer was generally eastward toward the St. Johns River. However, leaking stormwater drains locally modified the flow system to create small areas with flow that was diverted to the drains. The flow velocities in the upper layer at OU3 were slow, averaging about 2 feet per year. The slow velocities were primarily the result of the low horizontal hydraulic conductivity and, secondarily, the result of the low recharge rate. The simulated rate at which ground water leaked into the stormwater drains was low, averaging about 0.0011 cubic feet per second per 100 feet of stormwater drainage conduit. Ground-water flow in the intermediate layer moved eastward toward and discharged into the St. Johns River. Flow velocities were significantly higher in this layer than in the upper layer. The velocity was about 35 and 12 feet per year in the northern and southern parts of OU3, respectively.

INTRODUCTION

Background

The Naval Air Station, Jacksonville (herein referred to as the Station), occupies 3,800 acres adjacent to the St. Johns River in Jacksonville, Florida (fig. 1). The mission of the Station is to provide aerial anti-submarine warfare support, aviator training, and aircraft maintenance. Support facilities at the Station include an airfield, a maintenance depot, a Naval Hospital, a Naval Supply Center, a Navy Family Service Center, and recreational and residential facilities. Approximately 15,000 personnel are employed at the Station. Military activities have been conducted there since 1909.

The Station was placed on the U.S. Environmental Protection Agency's (USEPA) National Priorities List in December 1989 and is participating in the U.S. Department of Defense Installation Restoration Program, which serves to identify and remediate environmental contamination, in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1980 and 1985, respectively. On October 23, 1990, the Station entered into a Federal Facility Agreement with the USEPA and the Florida Department of Environmental Protection which designated Operable Units 1, 2, and 3 within the Station to facilitate remedial response activities (U.S. Navy, 1994). Operable Units were designated in areas where several sources of similar contamination existed in close proximity. The purpose of such designation was to allow the contaminated areas to be addressed in one coordinated effort.

Operable Unit 3 (OU3) occupies 134 acres on the eastern side of the Station (fig. 1). The area encompassed by OU3 is currently used for industrial and commercial purposes. The principal tenant is the Naval Aviation Depot, where approximately 3,000 personnel are employed in servicing and refurbishing numerous types of military aircraft. Waste materials spilled or disposed of at OU3 in past years include paint sludges, solvents, battery acids, aviation fuels, petroleum lubricants, and radioactive materials (U.S. Navy, 1994). The ground water of the surficial aquifer underlying OU3 has been contaminated by chlorinated organic compounds (U.S. Navy, 1994). Current investigations indicate that ground-water contamination is restricted to nine isolated "hot spot" areas. In six of these areas, the contamination is present in the upper layer of the surficial aquifer; in three of these areas, the contamination is present in the intermediate layer. The terms upper layer and intermediate layer are used to conform with the terminology of ABB Environmental Services, Inc. (ABB-ES); the upper and intermediate layers comprise the full thickness of the surficial aquifer; there is no lower layer (U.S. Navy, 1994).

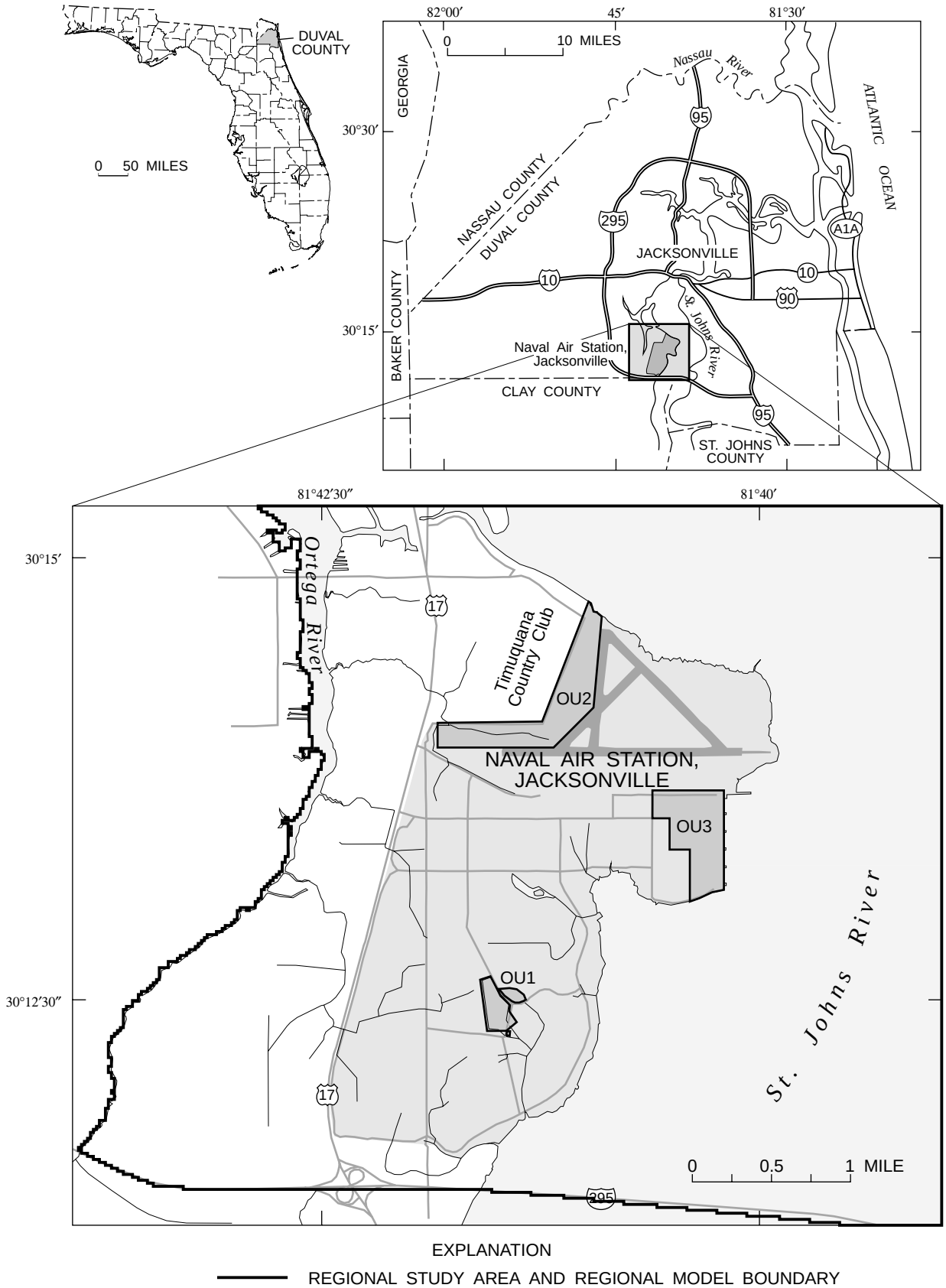


Figure 1. Location of the Jacksonville Naval Air Station and regional study area.

The USGS began working with the Station in 1991 when Navy officials were concerned about the possible off-site migration of contaminated ground water at Operable Unit 1 (OU1) and vicinity. As part of that investigation, a regional ground-water flow model of the surficial aquifer at the Station and surrounding area was developed and calibrated. At the area of interest around OU1, the surficial aquifer is relatively thin (about 40 ft) and there are no significant head differences between the top and bottom of the aquifer; for this reason the aquifer was simulated using a 1-layer model. Directions and velocities of ground-water flow at OU1 and the Station were determined using the model. Additionally, the model was used to evaluate the effect on ground-water flow of proposed remedial designs at OU1. The modeling was documented in a report by Davis and others (1996).

Officials from Southern Division Naval Facilities Engineering Command are concerned about the potential for transport of organic compounds by ground water beneath OU3 to the adjacent St. Johns River. These officials requested that the U.S. Geological Survey numerically simulate ground-water flow in the surficial aquifer to determine directions, velocities, and ultimate discharge points of ground water. This ground-water modeling augmented the work of ABB-ES which was contracted by the Navy to delineate and document the extent of contamination, assess the risk to human health and environment, and, if required, design cleanup strategies. For a complete discussion of the occurrence of contamination at OU3 refer to U.S. Navy (1998).

Purpose and Scope

This report presents the results of a hydrologic investigation and computer modeling of ground-water flow at OU3 of the Naval Air Station, Jacksonville, Fla. The investigation, including data collection, was undertaken specifically to help evaluate the potential for off-site migration of contaminated ground water at OU3. The report describes the hydrology of the Station, recalibration of a regional 1-layer ground-water flow model using recently collected data, use of the recalibrated model to establish boundaries for a 2-layer subregional model of OU3, ground-water hydrology of the subregional model area, calibration of the subregional model, model simulation of ground-water flow at OU3, and the determination of ground-water velocities using flow path analysis.

Acknowledgments

The author expresses appreciation to Dana Gaskins, Cliff Casey, and Anthony Robinson of Southern Division Naval Facilities Engineering Command, Daine Lancaster of the Station; and Phylissa Miller, Willard Murry, Fred Bragdon, and Srinivas Kuchibotla of ABB Environmental Services, Inc.

REGIONAL HYDROLOGY

Climate and Physiographic Setting

The regional study area (fig. 1) encompasses the Station and vicinity. This area has a humid subtropical climate. The average annual rainfall and temperature in Jacksonville for 1967-96 was 60.63 in. and 78^{o} F, respectively, with most of the annual rainfall occurring in the late spring and early summer (Fairchild, 1972). The distribution of rainfall in the vicinity of Jacksonville is highly variable because the majority comes from scattered convective thunderstorms during the summer. Winters are mild and dry with occasional frost from November through February (Fairchild, 1972).

Land-surface topography consists of gently rolling hills. Elevations range from about 30 ft above sea level at the tops of hills to 1 ft above sea level at the shorelines of the St. Johns and Ortega Rivers. The Station is located in the Dinsmore Plain of the Northern Coastal Strip of the Sea Island District in the Atlantic Coastal Plain Section (Brooks, 1981). The Dinsmore Plain is characterized by low-relief clastic terrace deposits of Pleistocene to Holocene age (Brooks, 1981).

Hydrogeologic Setting

The surficial aquifer is exposed at land surface and forms the uppermost permeable unit at the Station. The aquifer is composed of sedimentary deposits of Pliocene to Holocene age (fig. 2) and consists of 30 to 100 ft of tan to yellow, medium- to fine-grained unconsolidated silty sands interbedded with lenses of clay, silty clay, and sandy clay (U.S. Navy, 1994). The Pleistocene-age sedimentary deposits in Florida were deposited in a series of terraces formed during marine transgressions and regressions associated with glacial and interglacial periods (Miller, 1986). The Station is underlain by the sediments of the Pamlico Terrace (Stringfield, 1966; Snell and Anderson, 1970; Healy, 1975). The Miocene age Hawthorn Group, composed mainly of low-permeability clays, underlies and forms the base of the surficial aquifer.

The surficial aquifer in Duval County is recharged by rainfall. The average recharge rate is estimated to be 10 to 16 in /yr (Fairchild, 1972). Although water is not withdrawn from this aquifer for potable use at the Station, more than 50,000 domestic wells in Duval County pump approximately 8.7 Mgal/d from the aquifer. (Marella, 1993).

<table>
<tr><th rowspan="2">SYSTEM</th><th rowspan="2">SERIES</th><th rowspan="2">FORMATION</th><th rowspan="2">HYDROGEOLOGIC UNIT</th><th colspan="2">MODEL LAYERS</th></tr>
<tr><th>REGIONAL MODEL</th><th>SUBREGIONAL MODEL</th></tr>
<tr><td rowspan="4">QUATERNARY</td><td>HOLOCENE</td><td rowspan="4">Undifferentiated terrace and shallow marine deposits</td><td rowspan="4">Surficial aquifer</td><td rowspan="4">Layer 1</td><td>Upper layer</td></tr>
<tr><td rowspan="2">PLIESTOCENE</td><td rowspan="3">Intermediate layer</td></tr>
<tr><td rowspan="2">TERTIARY</td><td>PLIOCENE</td></tr>
<tr><td>MIOCENE</td><td>Hawthorn Group</td><td>Confining unit</td><td>No-flow boundary</td><td>No-flow boundary</td></tr>
<tr><td rowspan="3"></td><td>OLIGOCENE</td><td>Suwannee Limestone (absent)</td><td rowspan="3">Upper Floridan aquifer</td><td rowspan="3">Not modeled</td><td rowspan="3">Not modeled</td></tr>
<tr><td rowspan="2">EOCENE</td><td>Ocala Limestone</td></tr>
<tr><td>Avon Park Formation</td></tr>
</table>

Figure 2. Geologic units, hydrogeologic units, and equivalent layers used in the computer model.

The potentiometric surface of the surficial aquifer on October 29 and 30, 1996, is shown in figure 3. A north-south trending ground-water high is present that runs through the center of the Station. Generally, east of the high, ground water flows toward the St. Johns River; west of the high, ground water flows toward the Ortega River. Ground water from the surficial aquifer discharges to these rivers and they form the natural hydrologic boundaries for the aquifer within the regional study area.

The heads in four wells for 1993-97 are shown in figure 4. The altitude of the heads show seasonal variation, but the annual mean water levels do not vary significantly from year to year. Davis and others (1996) reported that the surficial aquifer at the Station could be analyzed by assuming steady-state conditions; that is, there were no long-term changes in the altitude of the water table. The head data collected from these wells support this assumption.

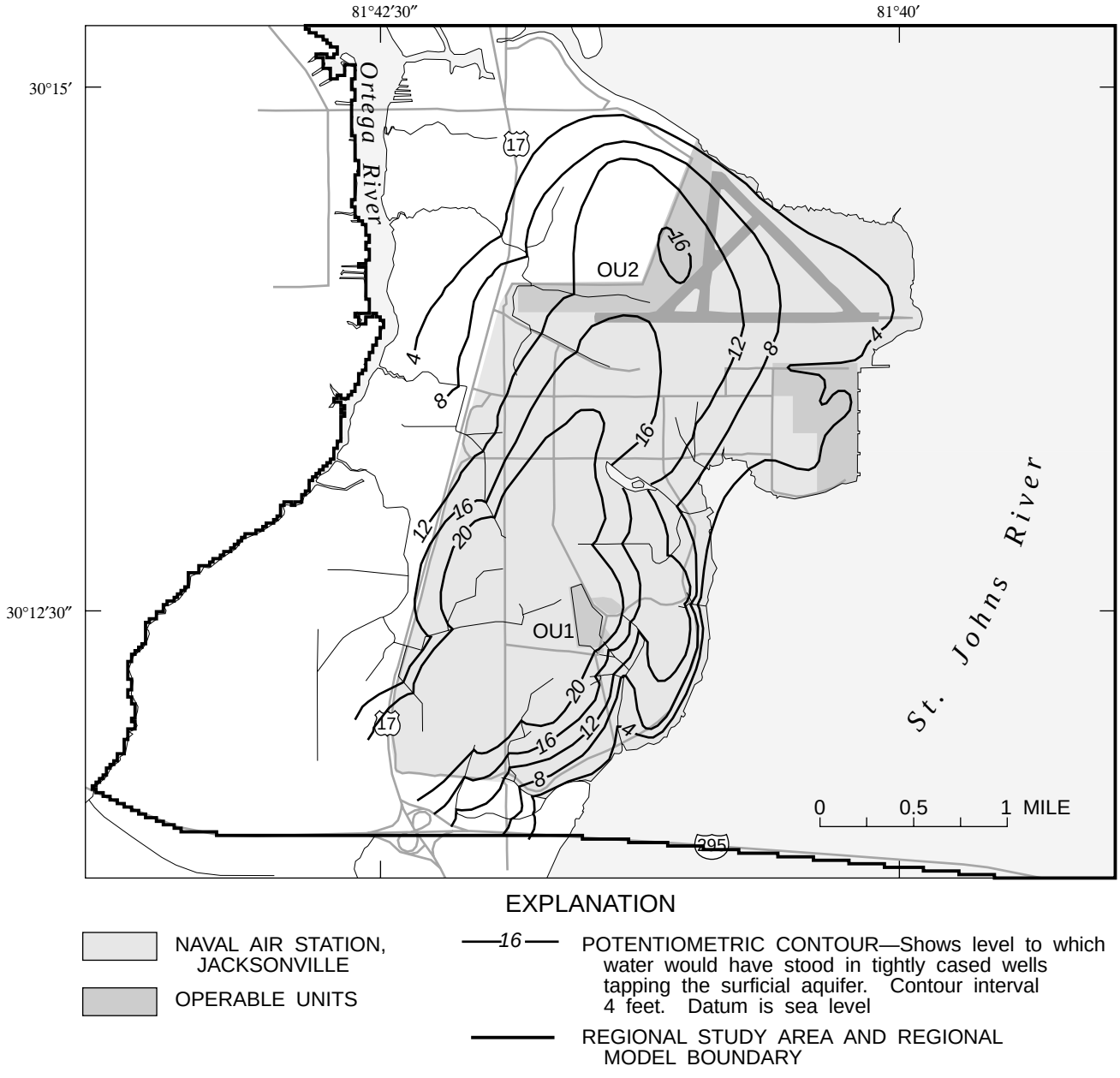


Figure 3. Potentiometric surface of the surficial aquifer on October 29 and 30, 1996, at the Jacksonville Naval Air Station.

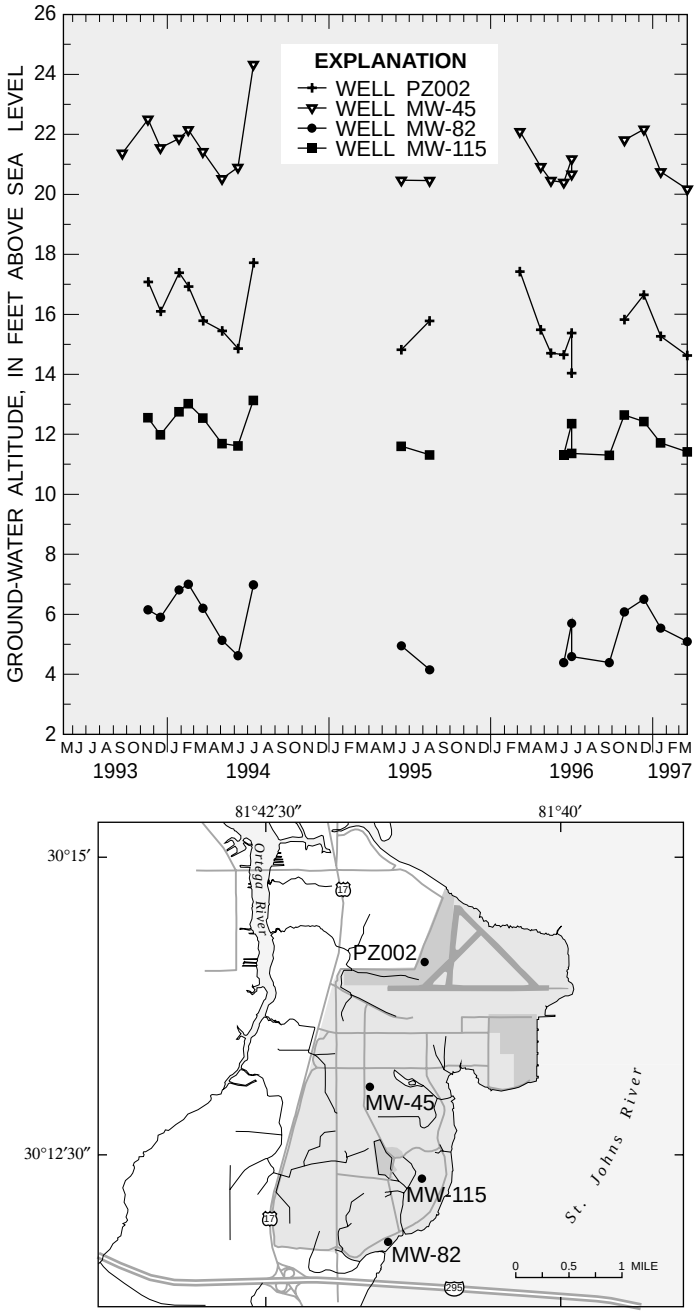


Figure 4. Ground-water fluctuations from May 1993 to March 1997 at the Jacksonville Naval Air Station.

Stream discharge measurements were taken on four separate occasions during periods when all streamflow was derived from ground-water seepage (fig. 5). The net gain in streamflows ranged from 0 to 0.39 ft^3/s. Measurements taken on December 3, 1992, November 18, 1993, and October 29 and 30, 1996, show reasonable consistency. The difficulty in taking streamflow measurements contributed to variable values at individual sites. Factors that made the measurements difficult to take were: (1) shallow water that did not completely submerge the flowmeter, (2) submerged vegetation, and (3) low-flow velocities. The measurement error is not known exactly but probably ranged up to about 50 percent, especially for the very low streamflows. The May 15-16, 1996, measurements were consistently lower than the others due to the relatively higher evapotranspiration during the summer period preceding the measurements, whereas the other measurements were taken in the fall and winter when evapotranspiration is normally low.

The Hawthorn Group forms the base of the surficial aquifer and separates it from the underlying Upper Floridan aquifer. It is of Miocene age and unconformably overlies limestone of the Upper Floridan aquifer (Leve, 1978; Scott, 1988). The top of the Hawthorn Group ranges from 35 to 100 ft below sea level at the Station, and is approximately 300 ft thick. The Hawthorn Group is principally composed of dark gray and olive green sandy to silty clay, clayey sand, clay, and sandy limestone, all of which contain moderate to large amounts of black phosphatic sand, granules, or pebbles (Fairchild, 1972; Scott, 1988).

The Upper Floridan aquifer underlies the Hawthorn Group and is the source of public water supply in the vicinity of the Station. This aquifer consists of approximately 350 ft of limestone and dolomite of the Ocala Limestone and the Avon Park Formation, both of Eocene age (Miller, 1986). The top of the Avon Park Formation lies at approximately 600 ft below sea level at the Station, and the top of the Ocala Group ranges from 300 to 400 ft below sea level (Spechler, 1994). The Upper Floridan aquifer is recharged in the counties to the west where it is unconfined (Fairchild, 1977). Ground water in this aquifer generally flows eastward, where discharge occurs through wells, springs, and upward seepage into overlying formations (Fairchild, 1977; Bradner and others, 1992). Ground-water withdrawals from wells tapping this aquifer averaged approximately 144 Mgal/d in 1990 (Marella, 1993). The head in the Upper Floridan aquifer is approximately 15 ft higher than the head in the surficial aquifer at the Station, creating an upward ground-water gradient between the Upper Floridan aquifer and the surficial aquifer.

REGIONAL GROUND-WATER FLOW MODEL CALIBRATION

The USGS previously developed and calibrated a 1-layer ground-water flow model that simulated steady-state flow in the surficial aquifer within the regional study area. This model was calibrated to water- level and streamflow data collected on November 18, 1993. Simulations were made using the USGS Modular Three-Dimensional Finite-Difference Ground-Water Flow Model (MODFLOW) as described in McDonald and Harbaugh (1988). This regional model was recalibrated for this study to incorporate additional water-level data collected since that date. This section describes changes made to recalibrate the regional model which was then used to establish the boundaries for the subregional model at OU3.

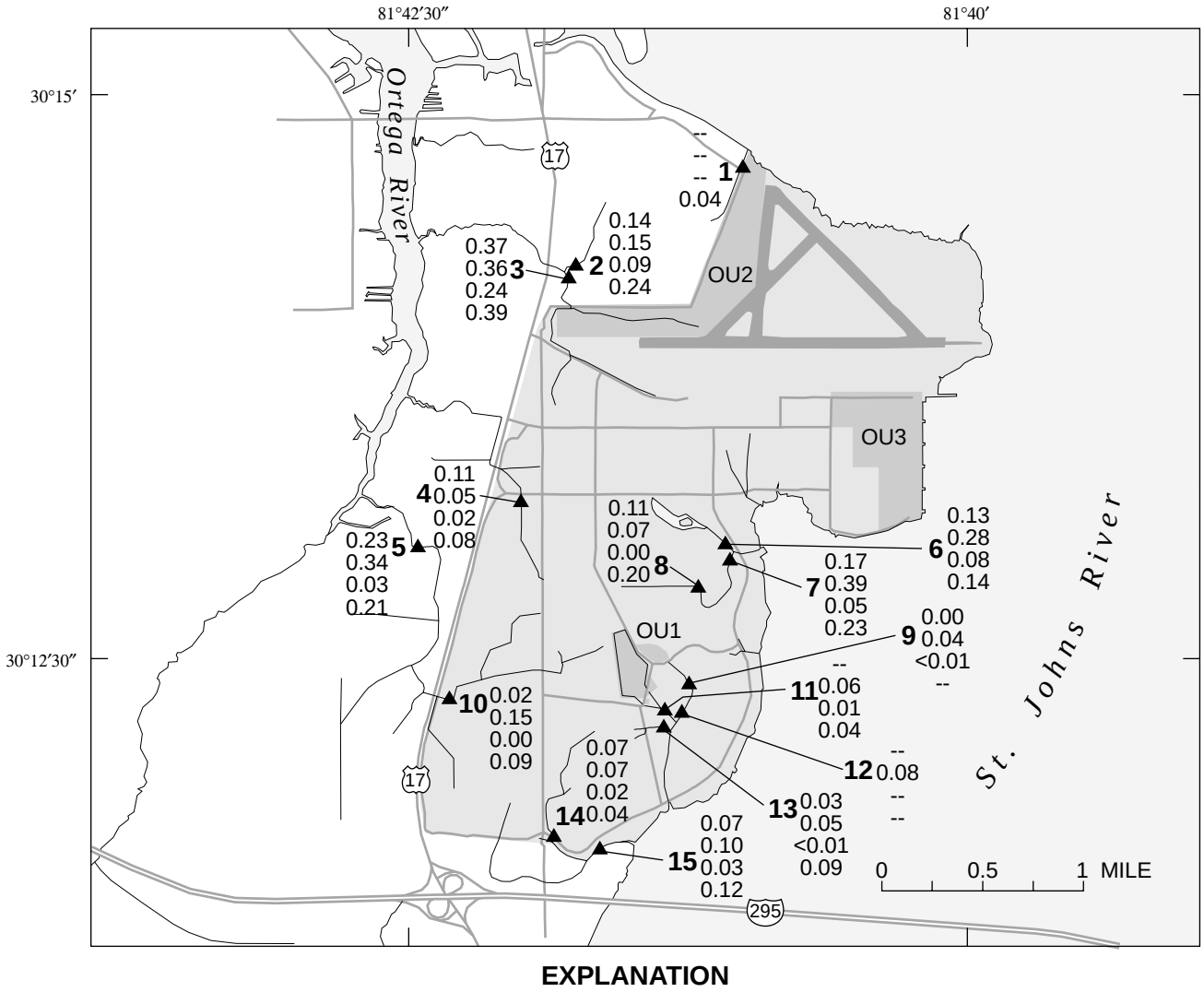


Figure 5. Net gain in streamflows for the period December 3, 1992, to October 30, 1996, at the Jacksonville Naval Air Station.

The current data came from two shallow monitoring wells installed to provide water-level information in areas where data were sparse. After installation of these two wells, water levels were measured in all Station wells on October 29 and 30, 1996, concurrent with streamflow measurements. These data were then used to check the regional model calibration. Simulated heads of the regional model matched 128 of 131 measured heads from the updated data set to within the calibration criterion of 2.5 ft. The model did not match the head in the two new wells and in one of the original wells. To improve the match between the remaining three heads, adjustments were made to parameters of the original regional model.

For well A in figure 6, the original model overestimated the measured head by about 3.5 ft. To lower the simulated head in this area, a 0.5-mi-long drain was added to the model and the recharge rate was lowered from 5 to 2.5 in/yr. The drain represents a stormwater drain that is located beneath the airfield. The drain was field checked during a no-rainfall period and was draining a small volume of water. For well B, the original model underestimated the measured head by about 3.5 ft. To raise the simulated head in this area, the riverbed conductance of two small

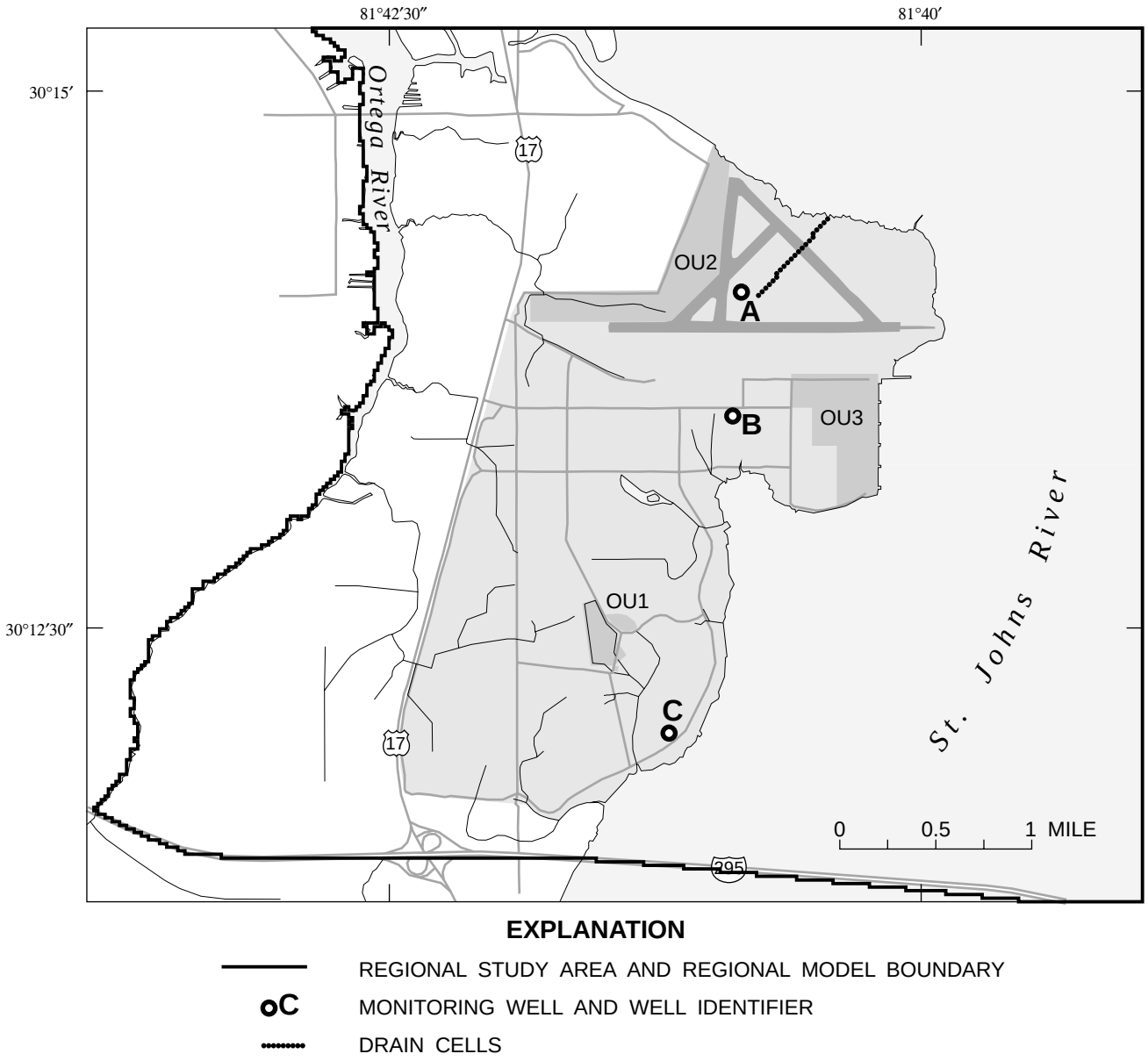


Figure 6. Modifications to the regional ground-water flow model.

ditches that were simulated southwest of the well was reduced from 250 to 4 ft^2/d to represent the concrete liner that was installed in these ditches during World War II. The concrete liner limits ground-water seepage into the ditch. For well C in figure 6, both the initial and the final regional models overestimated the measured head by about 5.6 ft. A field check of the well indicated that the measured head was valid. Several unsuccessful attempts were made to improve the simulated head. The mismatch, however, should not affect computed heads at OU3 because well C is located at a relatively large distance away and is separated from OU3 by a lobe of the St. Johns River. Using the recalibrated regional model, the direction and velocity of ground-water flow (fig. 7) were calculated using MODPATH (Pollock, 1989).

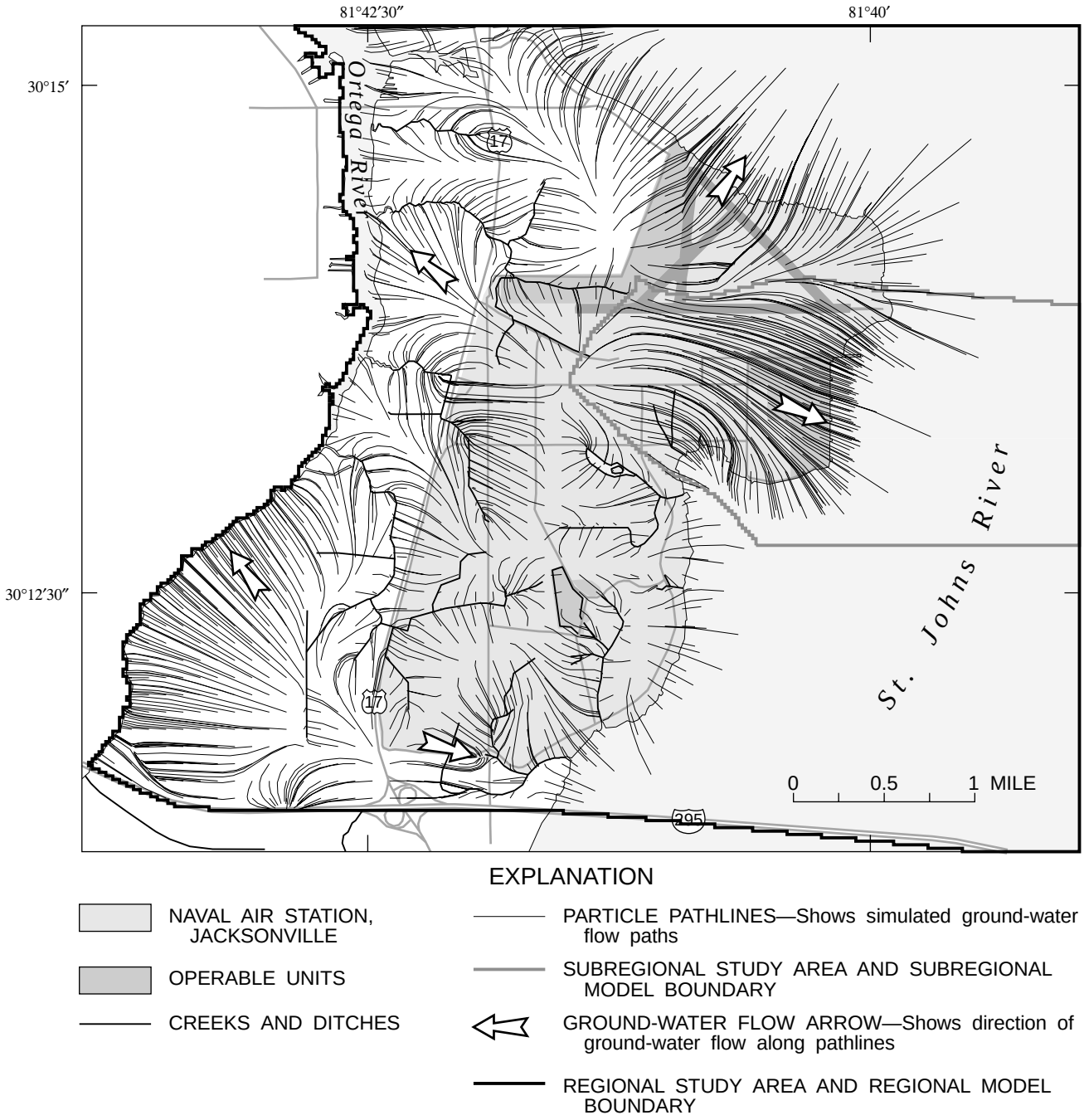


Figure 7. Particle pathlines representing simulated ground-water flow directions at the Jacksonville Naval Air Station.

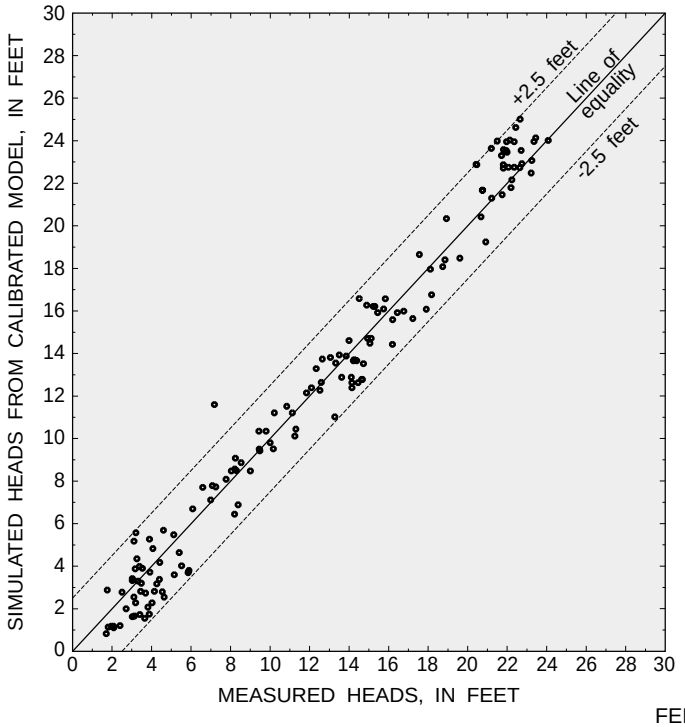
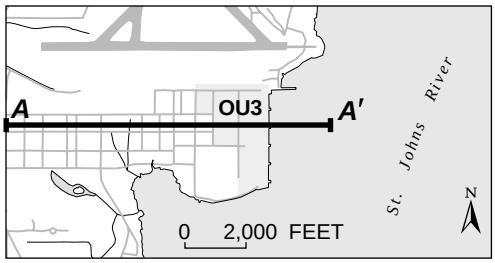
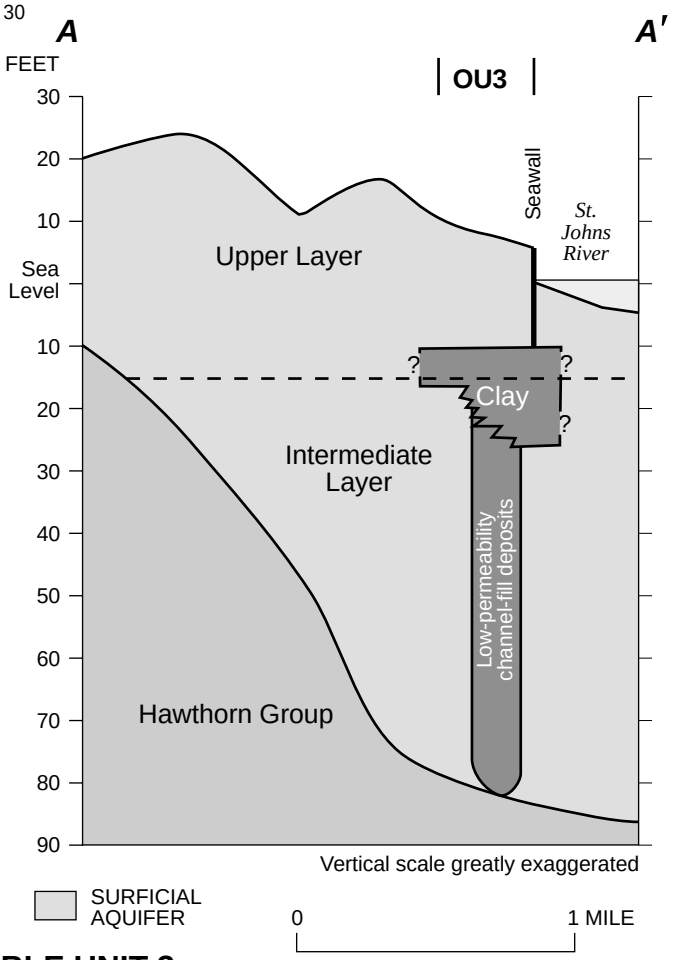


Figure 8. Comparison of measured and simulated heads for the regional model.

Figure 9. Generalized hydrogeologic section through the subregional study area.





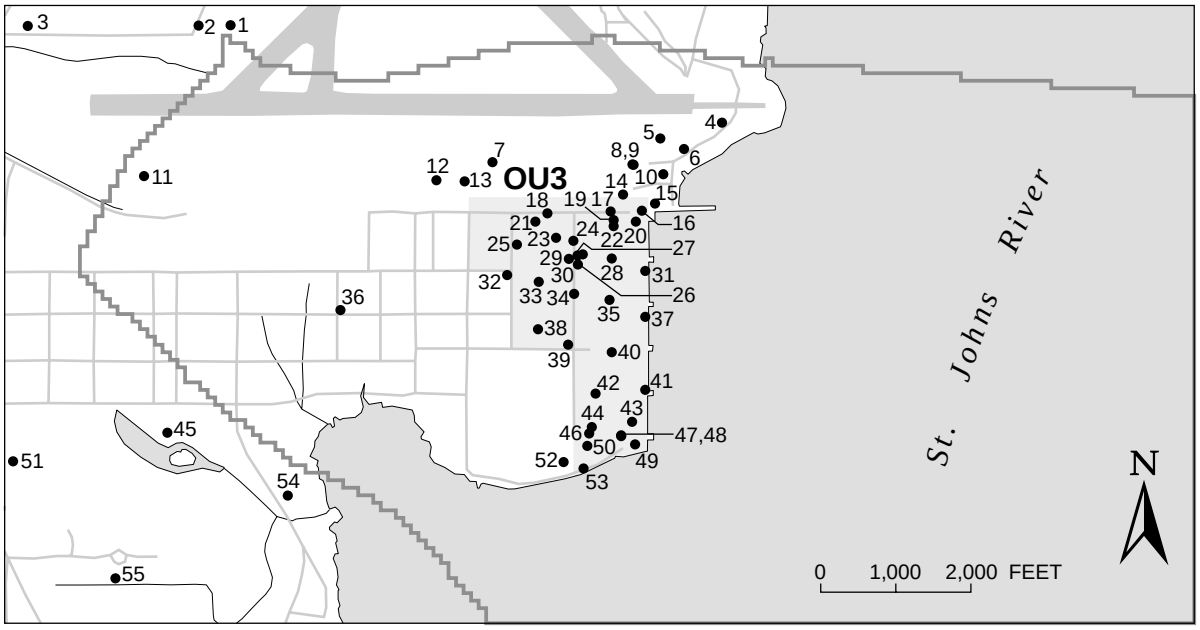
During calibration of the OU3 subregional model (discussed in a later section), the recharge rate within the subregional area was increased from the regional model values. The increased recharge was also applied to the regional model during recalibration to ensure consistency between the two models. When the recalibration of the regional model was completed, the simulated heads matched the measured heads within the calibration criterion of 2.5 ft in 130 of 131 wells. A comparison of the measured and simulated heads for the final regional model is shown in figure 8.

Streamflows measured on November 18, 1993, for the original calibration, totaled 2.07 ft^3/s. Streamflows measured on October 29 and 30, 1996, for the recalibrated model, totaled 1.87 ft^3/s, a reduction of 10 percent. Streamflows were only totaled at sites where measurements were made over both periods. The streamflows were higher at six locations on October 29 and 30, 1996, than on November 18, 1996. Due to the similarity of streamflows during the two periods, the simulated recharge rate was not modified except where already discussed.

GROUND-WATER HYDROLOGY AT OPERABLE UNIT 3

The subregional study area encompasses OU3 and the nearby surrounding area (fig. 7). Within the subregional study area, the surficial aquifer is composed of two distinct layers (fig. 9). The upper layer is unconfined and extends from land surface to a depth of approximately 15 ft below sea level; the intermediate layer is confined and

extends from the upper layer downward to the top of the Hawthorn Group. In the northern and central parts of OU3, the upper and intermediate layers are separated by a very low-permeability clay layer. The upper and intermediate layers span the full thickness of the surficial aquifer. The locations of monitoring wells installed in the upper and intermediate layers are shown in figures 10 and 11, respectively; the wells are described in tables 1 and 2.

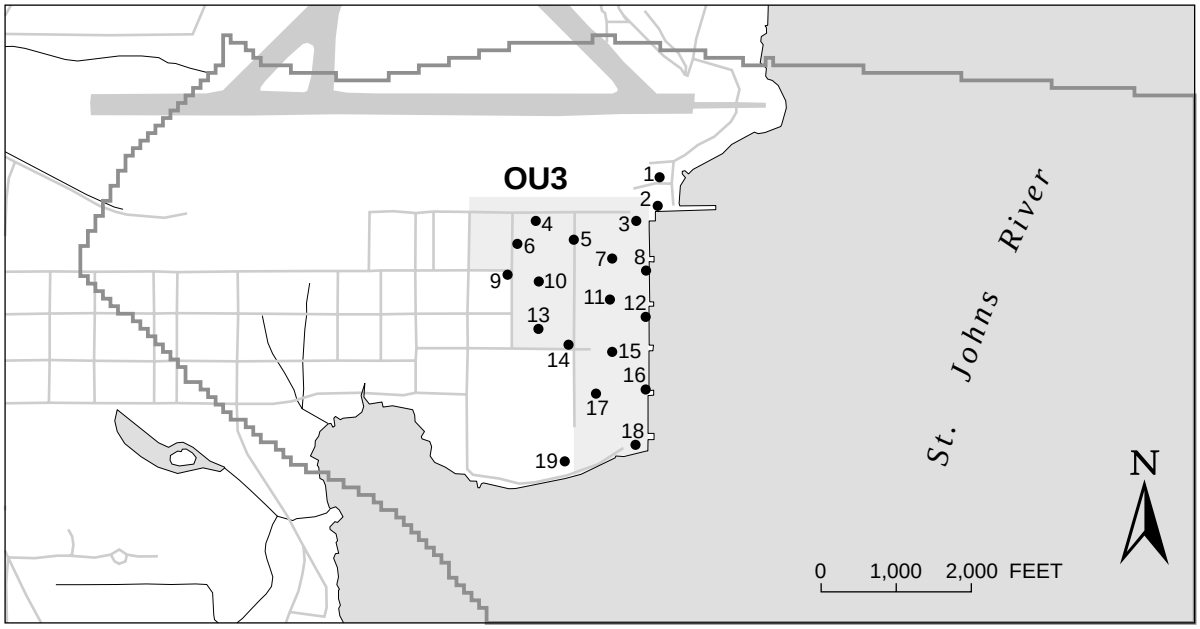


EXPLANATION

OU3 SUBREGIONAL STUDY AREA AND SUBREGIONAL MODEL BOUNDARY

●55 UPPER LAYER WELL WITH NUMBER—Number corresponds to map number in table 1

Figure 10. Wells completed in the upper layer of the surficial aquifer within the subregional study area.



EXPLANATION

OU3 SUBREGIONAL STUDY AREA AND SUBREGIONAL MODEL BOUNDARY

19● INTERMEDIATE LAYER WELL WITH NUMBER—Number corresponds to map number in table 2

Figure 11. Wells completed in the intermediate layer of the surficial aquifer within the subregional study area.

Table 1. Monitoring wells completed in the upper layer of the surficial aquifer and located in the subregional study area

[---, Shallow well, exact depth is unknown]

Map number	Well name	Altitude of top of casing, in feet	Well depth, in feet	Altitude of head on October 29 and 30, 1996, in feet
1	MW-16	20.68	12.0	14.89
2	U2PZ001	19.15	---	14.51
3	U2PZ006	19.13	---	12.33
4	JAX-TF-MW27	6.20	9.0	4.02
5	JAX-TF-MW24	7.59	7.0	4.39
6	JAX-TF-MW37	5.73	7.0	3.69
7	JAX-HA-MW03	10.04	12.0	6.99
8	JAX-TF-MW41	10.29	12.0	5.89
9	JAX-TF-MW47D	10.17	25.6	5.85
10	JAX-TF-MW14	8.65	11.0	4.14
11	MW41-R	21.29	---	17.55
12	JAX-HA-MW05	11.11	12.0	8.21
13	JAX-HA-MW06	10.23	12.0	7.25
14	NARF-17	12.15	17.4	5.15
15	JAX-TF-MW06	8.33	11.0	4.63
16	NARF-18	8.12	15.5	1.75
17	NARF-16	9.04	14.4	3.91
18	NARF-15	10.76	17.5	3.89
19	U3P159MW-2	7.61	13.3	3.02
20	U3P159MW-1	6.56	13.5	2.50
21	PZ024	9.04	14.0	3.20
22	U3P159MW-3	8.32	12.9	3.02
23	U3B101MW-3	9.71	13.5	4.06
24	NARF-14	9.04	15.0	3.25
25	TP008	9.70	18.2	4.60
26	U3P159MW-4	8.22	13.0	3.17
27	MW-6	8.49	14.1	3.38
28	PZ014	8.50	14.0	3.48
29	U3B101MW-4	9.88	13.4	4.41
30	MW-7	8.72	11.4	3.53
31	PZ004	5.64	14.0	2.71
32	PZ026	10.86	13.5	5.12
33	MW-1	9.99	13.0	5.40
34	PZ019	9.15	14.0	3.70
35	PZ006	8.19	14.5	4.54
36	MW-122	13.67	13.5	10.00
37	PZ010	5.90	14.0	3.13
38	PZ021	9.99	13.0	5.52
39	PZ017	10.77	14.0	4.26
40	PZ012	9.22	15.0	3.19
41	PZ001	3.99	13.0	1.96
42	PZ008	9.40	16.0	3.81
43	JAX873-6	7.34	12.6	1.80
44	NARF-B1	11.65	16.5	3.40
45	MW-47	20.99	14.5	15.05
46	NARF-9	18.39	27.5	3.88
47	JAX873-4	8.16	13.1	2.07

Table 1. Monitoring wells completed in the upper layer of the surficial aquifer and located in the subregional study area--Continued

[---, Shallow well, exact depth is unknown]

Map number	Well name	Altitude of top of casing, in feet	Well depth, in feet	Altitude of head on October 29 and 30, 1996, in feet
48	JAX873-5	8.14	25.1	2.08
49	JAX873-10	6.79	12.5	1.70
50	NARF-11	19.28	27.8	3.65
51	MW-45	27.45	16.0	21.81
52	MW-49	22.11	25.5	3.02
53	NARF-12	6.01	17.5	2.40
54	MW-121	11.47	13.5	8.20
55	MW-52	27.76	16.0	18.92

Table 2. Monitoring wells completed in the intermediate layer of the surficial aquifer and located in the subregional study area.

Map number	Well name	Altitude of top of casing, in feet	Well depth, in feet	Altitude of head on October 29 and 30, 1996, in feet
1	JAX-TF-MW49D	8.23	33.0	3.44
2	JAX-TF-MW48D	8.36	36.5	3.10
3	PZ027	6.68	88.5	3.53
4	PZ023	9.23	80.50	6.29
5	NARF-D1	8.84	55.3	5.60
6	PZ030	9.52	79.3	6.44
7	PZ013	8.65	67.5	5.13
8	PZ003	5.71	63.7	4.81
9	PZ025	10.69	85.5	6.55
10	PZ022	10.14	82.5	6.21
11	PZ005	8.24	99.0	3.40
12	PZ009	5.90	94.0	3.39
13	PZ020	10.04	89.5	4.30
14	PZ016	10.80	54.0	4.03
15	PZ011	9.27	93.0	3.45
16	PZ002	4.18	87.5	3.17
17	PZ007	9.62	61.0	3.77
18	PZ015	9.44	56.5	2.34
19	MW-50	21.96	92.0	3.26

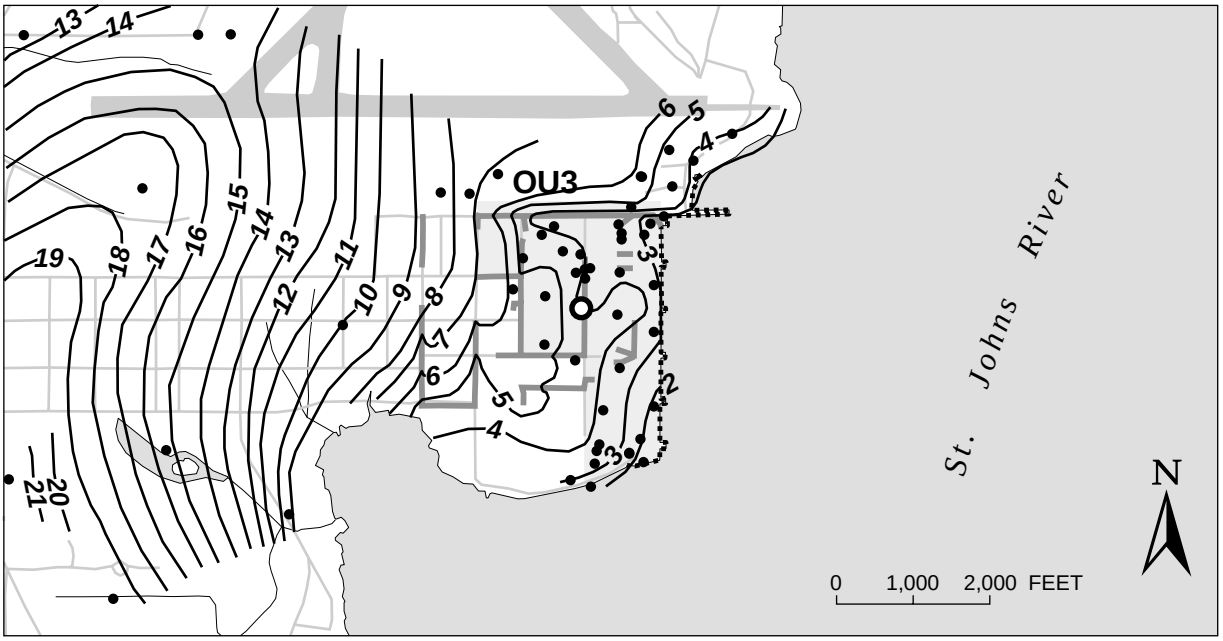
Water-table contours indicate that ground-water flow in the upper layer moves generally eastward toward the St. Johns River (fig. 12). A seawall partially blocks ground-water flow in the upper layer along the central and northern parts of OU3. In this area, the seawall extends downward approximately 20 ft deep and into the clay layer that separates the upper and intermediate layers. At the southern end of OU3, the seawall is set less than 20 ft deep and the clay layer is much less continuous; lower heads in this area indicate that ground water is seeping under or through the seawall.

An extensive stormwater drainage system is present within the subregional study area (fig. 13). Ground-water seepage into the drains through joints and cracks has been documented by camera surveys in selected drains. Visual inspection of the drains by Navy personnel indicates that leaking joints and cracks are generally confined to high-traffic areas; within the high-traffic areas, approximately 30 percent of the joints leak. Depressions in the water-table surface caused by the drains could be observed in areas where the monitoring well density is high. The depths to the bottom of the drains vary but generally range from 5 to 10 ft below land surface. The bottom and stage in the drains is below the water table, so the drains can remove ground water from the upper layer of the aquifer but cannot act as a source of water to the aquifer.

Stormwater drains that are most likely to be leaking are shown on figure 13. Drains were determined to have a high potential to leak if (1) camera surveys showed them to be leaking, (2) they underlay high-traffic areas and a visual inspection showed flowing water in the drain during a no-rainfall period, or (3) depressions in the water-table surface indicated leakage. The presence of flowing water in a drain was not considered proof in itself that the drain was leaking, because there are other sources of water to the drains, such as condensate from sumps and air conditioners. However, a dry drain was considered proof of no ground-water leakage.

The horizontal hydraulic conductivity in the upper layer of the surficial aquifer at OU3 ranged from 0.19 to 3.8 ft/d, with a mean value of 0.9 ft/d, based on slug tests of seven piezometers (Geraghty and Miller, 1991). These values are within the range for silty sands described by Freeze and Cherry (1979). A horizontal hydraulic conductivity of 0.6 ft/d for the upper layer (U.S. Geological Survey data, 1997) was determined from a multiple-well aquifer test (location shown on fig. 12).

The potentiometric surface of the intermediate layer indicates that ground-water flow is generally eastward toward the St. Johns River (fig. 14). The eastward movement of ground water is partially blocked by a naturally occurring, nearly vertical wall of low-permeability channel-fill deposits (figs. 9 and 14) resulting in a sharp drop in the potentiometric surface from north to south. North of the channel-fill deposits, the horizontal ground-water gradient is significantly larger than south of the deposits. These channel-fill deposits extend from the top of the intermediate layer to the bottom or very near the bottom. U.S. Geological Survey topographic maps, made prior to construction at the Station, show that a deeply incised creek or inlet was present at the same location the channel-fill deposits exist in the subsurface. These deposits could be the result of infilling of an erosional channel by low-permeability sediments.



EXPLANATION

—19— WATER TABLE CONTOUR—Shows level to which water would have stood in tightly cased wells tapping the upper layer of the surficial aquifer. Contour interval 1 foot. Datum is sea level

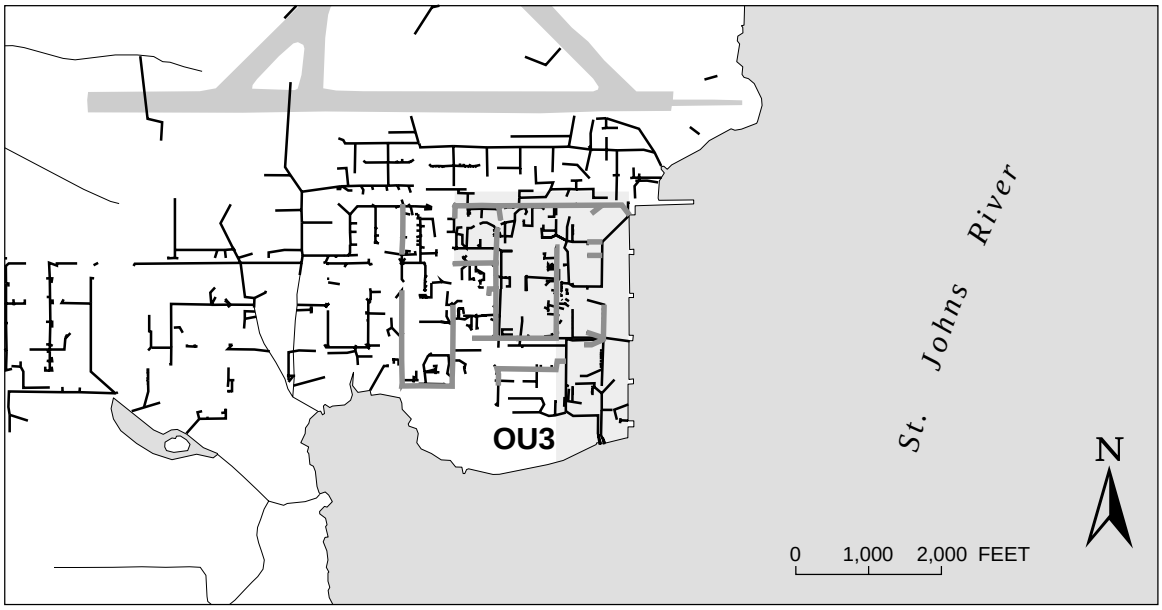
STORMWATER DRAINS THAT MAY BE DRAINING GROUND WATER FROM THE UPPER LAYER OF THE SURFICIAL AQUIFER

SEAWALL

MONITORING WELL LOCATION

AQUIFER TEST LOCATION—Test conducted in the upper layer

Figure 12. Water table surface for the upper layer of the surficial aquifer on October 29 and 30, 1996, within the subregional study area.

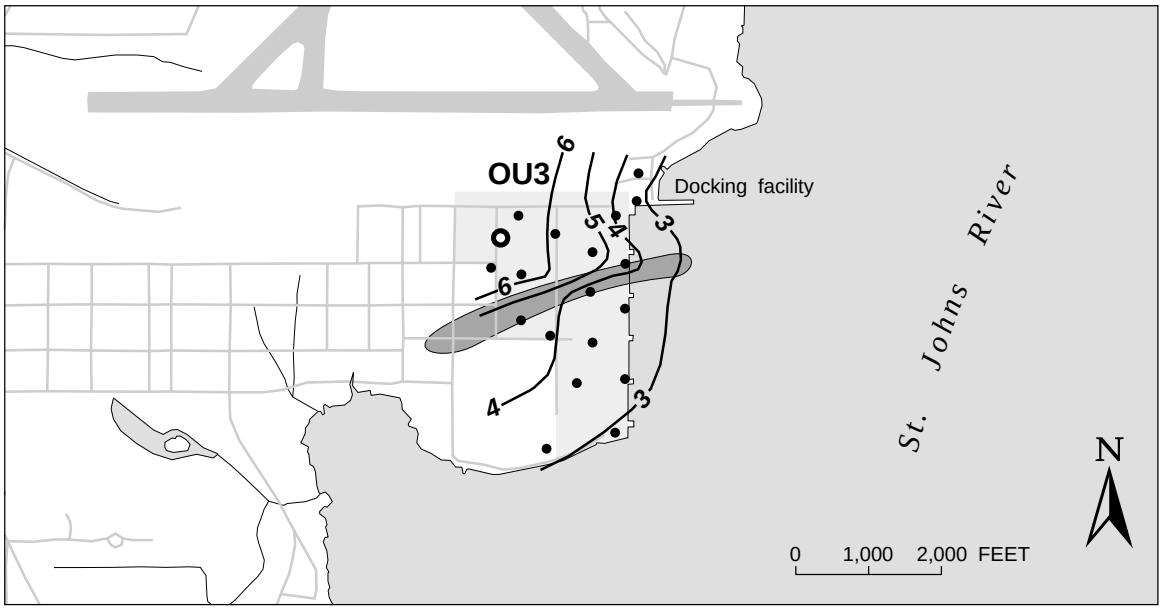


EXPLANATION

ALL IDENTIFIED STORMWATER DRAINS IN AND ADJACENT TO THE SUBREGIONAL STUDY AREA

STORMWATER DRAINS THAT MAY BE DRAINING GROUND WATER FROM THE UPPER LAYER OF THE SURFICIAL AQUIFER

Figure 13. Stormwater drain system at the Jacksonville Naval Air Station.



EXPLANATION

LOW-PERMEABILITY CHANNEL-FILL DEPOSITS

—4— POTENTIOMETRIC CONTOUR—Shows level to which water would have stood in tightly cased wells tapping the intermediate layer of the surficial aquifer. Contour interval 1 foot. Datum is sea level

MONITORING WELL LOCATION

AQUIFER TEST LOCATION—Test conducted in the intermediate layer

Figure 14. Potentiometric surface for the intermediate layer of the surficial aquifer on October 29 and 30, 1996, within the subregional study area.

At the northeastern corner of OU3 is a docking facility (formerly used to off load fuel barges) that projects out into the St. Johns River (fig.14). A channel was dredged in the river bottom to allow barge access to the dock. This dredging probably removed most or all of the upper layer of the surficial aquifer and may have removed or disturbed part of the underlying clay layer. The potentiometric contours near the dock appear relatively depressed, indicating that ground water could be discharging from the intermediate layer in this area.

A multiple-well aquifer test (location shown on fig. 14) was conducted on the intermediate layer, and a horizontal hydraulic conductivity of 20 ft /d was determined (U.S. Geological Survey data, 1997). During the test, the intermediate layer was pumped at 17 gal/min. Water levels were recorded in three sets of nested piezometers located 20, 50, and 100 ft from the pumping well. Each set of piezometers consisted of 3 wells; one was screened at the base of the upper layer, one near the top of the intermediate layer, and one near the bottom of the intermediate layer. The aquifer test lasted about 21 hours. At 250 minutes into the test, the rate of drawdown in the piezometers screened in the intermediate layer doubled, indicating that the cone of depression had reached the low-permeability channel-fill deposits.

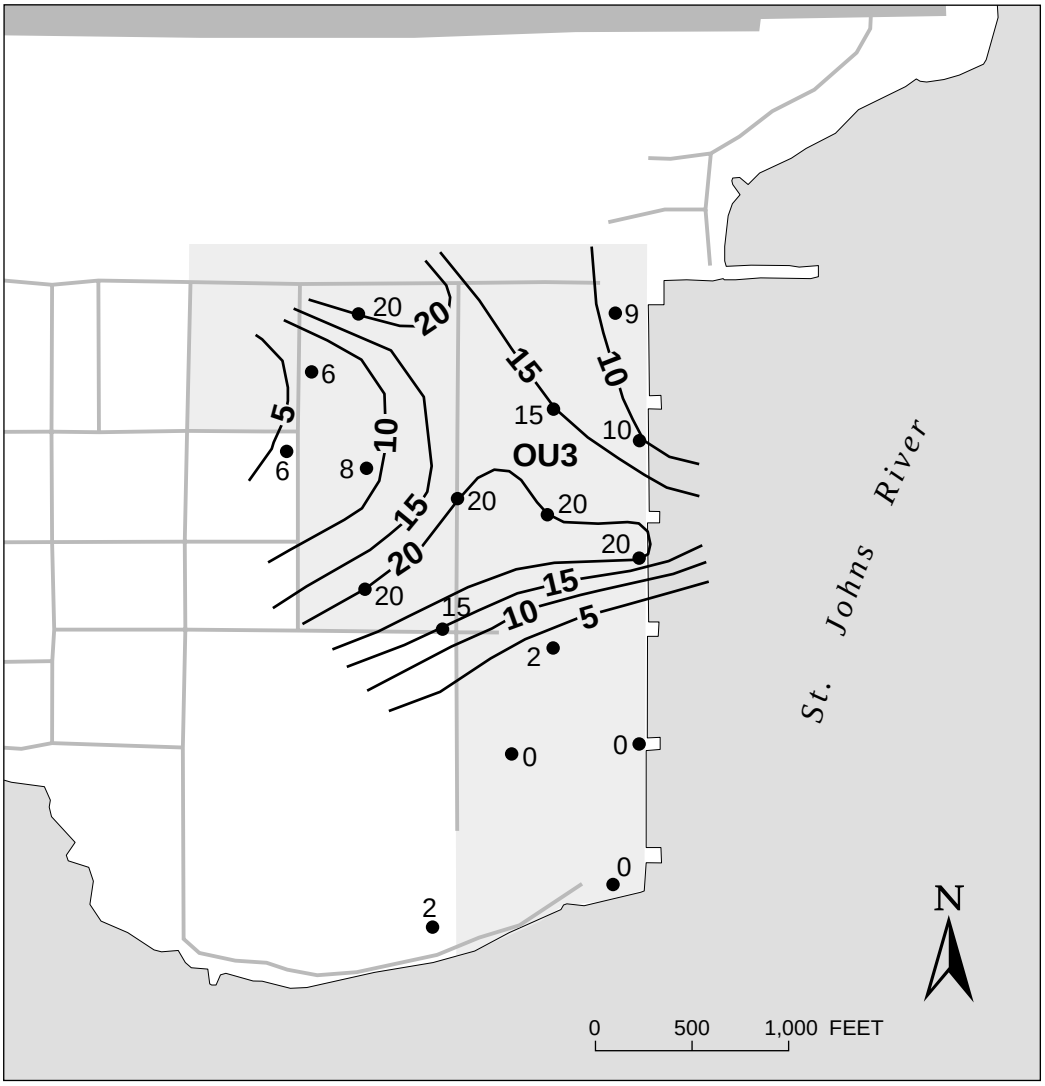
A clay layer separates the upper and intermediate layers in some areas (fig. 15), and has a very low vertical permeability. During the aquifer test discussed above, drawdowns in the wells completed in the intermediate layer were as much as 1.6 ft, whereas wells completed in the upper layer (5 ft of screen immediately above the clay) showed no response to pumping during the entire test. This indicates that the effect of pumping did not cross the clay layer for the duration of the aquifer test.

The vertical head differences between the intermediate and upper layers ranged from 3.09 ft in the northwestern part of OU3 to -1.53 ft in the northeastern part (fig. 16). In this figure, positive head differences indicate an upward gradient and negative head differences indicate a downward gradient. The pattern of head differences is caused by a combination of factors (fig. 17). Heads in the upper layer generally increase uniformly from the coast to inland areas, except in the northern part of OU3 where they are relatively lower due to ground-water discharge to leaking stormwater drains (figs. 12 and 17). Heads in the intermediate layer also increase from the coast to inland areas, but the gradient varies north and south of the channel-fill deposits. The horizontal gradient in the intermediate layer is steeper north of the channel-fill deposits, because lateral flow is partially impeded by the deposits. As a result, there is a relatively large drop in heads in the intermediate layer from north to south across the deposits and there is a corresponding reversal in vertical gradients (figs. 14, 16, and 17). Near the docking facility, heads in the intermediate layer are relatively low due to the effects of dredgings, and heads in the upper layer are relatively high due to the damming effect of the seawall. This results in a downward vertical gradient in this area. Within the subregional study area, the vertical head differences were known only at OU3 because this is the only area where nested wells were installed.

The surficial aquifer is bounded below by the low-permeability clays of the Hawthorn Group (fig. 18). The sands, silts, and clays of the surficial aquifer grade into silts and clays of the Hawthorn Group. At OU3, the exact contact between the surficial aquifer and the Hawthorn Group was difficult to recognize. In selecting the top of the Hawthorn Group, the deeper well picks were used because they were more representative of the actual top. The Hawthorn Group is about 300 ft thick at the Station.

GROUND-WATER FLOW SIMULATION AT OPERABLE UNIT 3

A subregional model was developed to investigate ground-water flow at OU3. The surficial aquifer in the area of OU3 consists of two distinct layers with differing hydrologic characteristics, as discussed previously. For this reason, a subregional multiple-layer model was needed to accurately simulate and delineate ground-water flow beneath OU3. Computer modeling of ground-water flow was performed using MODFLOW (McDonald and Harbaugh, 1988), ground-water flow rates were determined using ZONEBUDGET (Harbaugh, 1990), sensitivity analysis was performed using the calibrated model, and MODPATH (Pollock, 1989) was used to determine the direction and velocity of ground-water flow.

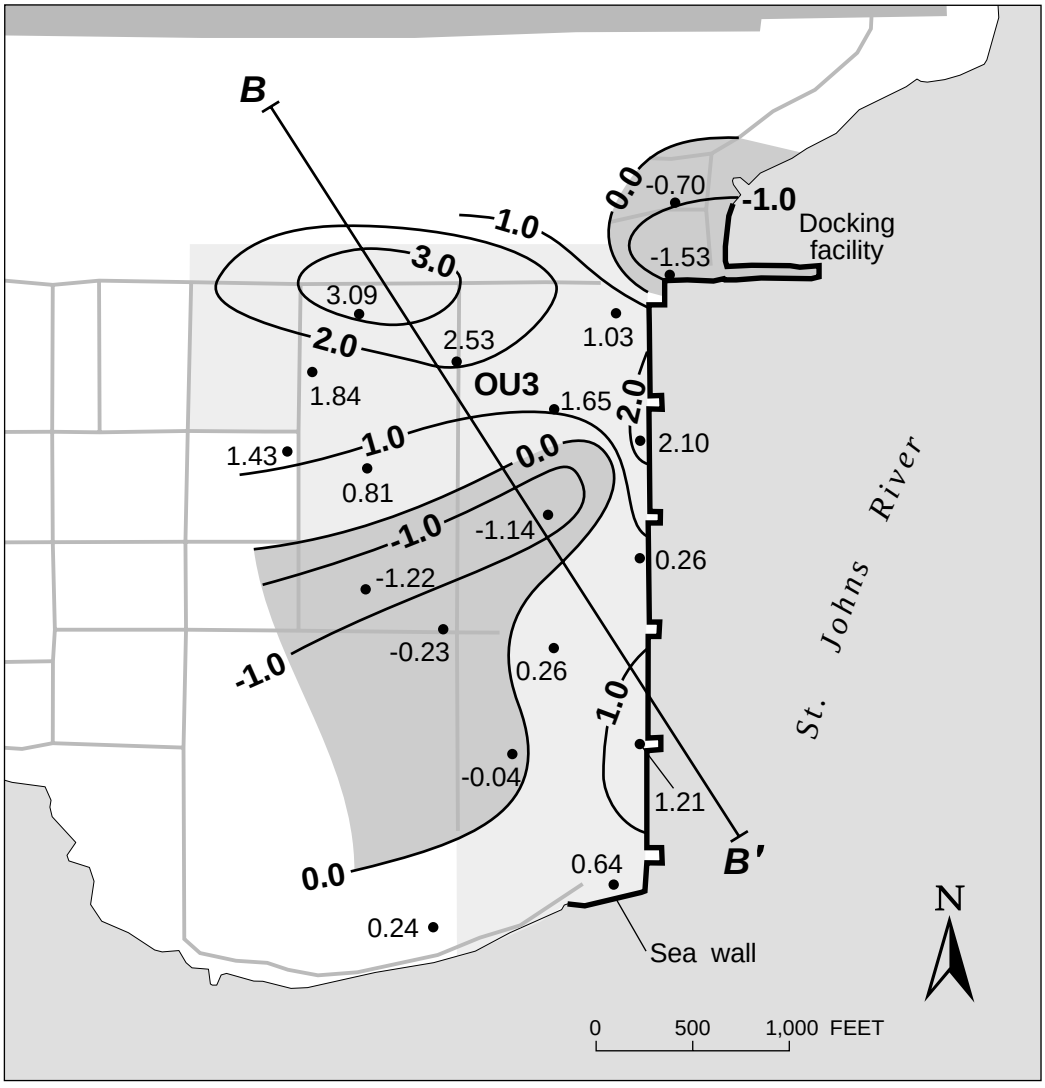


EXPLANATION

—5— THICKNESS OF CLAY THAT SEPARATES THE UPPER AND INTERMEDIATE LAYERS—Contour interval 5 feet

●2 WELL—Number is thickness of clay, in feet

Figure 15. Thickness of the clay layer that separates the upper and intermediate layers of the surficial aquifer.



EXPLANATION

AREA IN WHICH THE VERTICAL GROUND-WATER GRADIENT IS DOWNWARD

B B' LINE OF SECTION SHOWN IN FIGURE 17

—1.0— HEAD DIFFERENCE CONTOUR—Shows line of equal difference in measured head between the intermediate and upper layers of the surficial aquifer. Contour interval 1 foot

• 0.24 WELL—Number is difference in measured head between the intermediate and upper layers of the surficial aquifer. Positive values indicate upward gradient, negative values indicate downward gradient. Values in feet

Figure 16. Head difference between the intermediate and upper layers of the surficial aquifer.

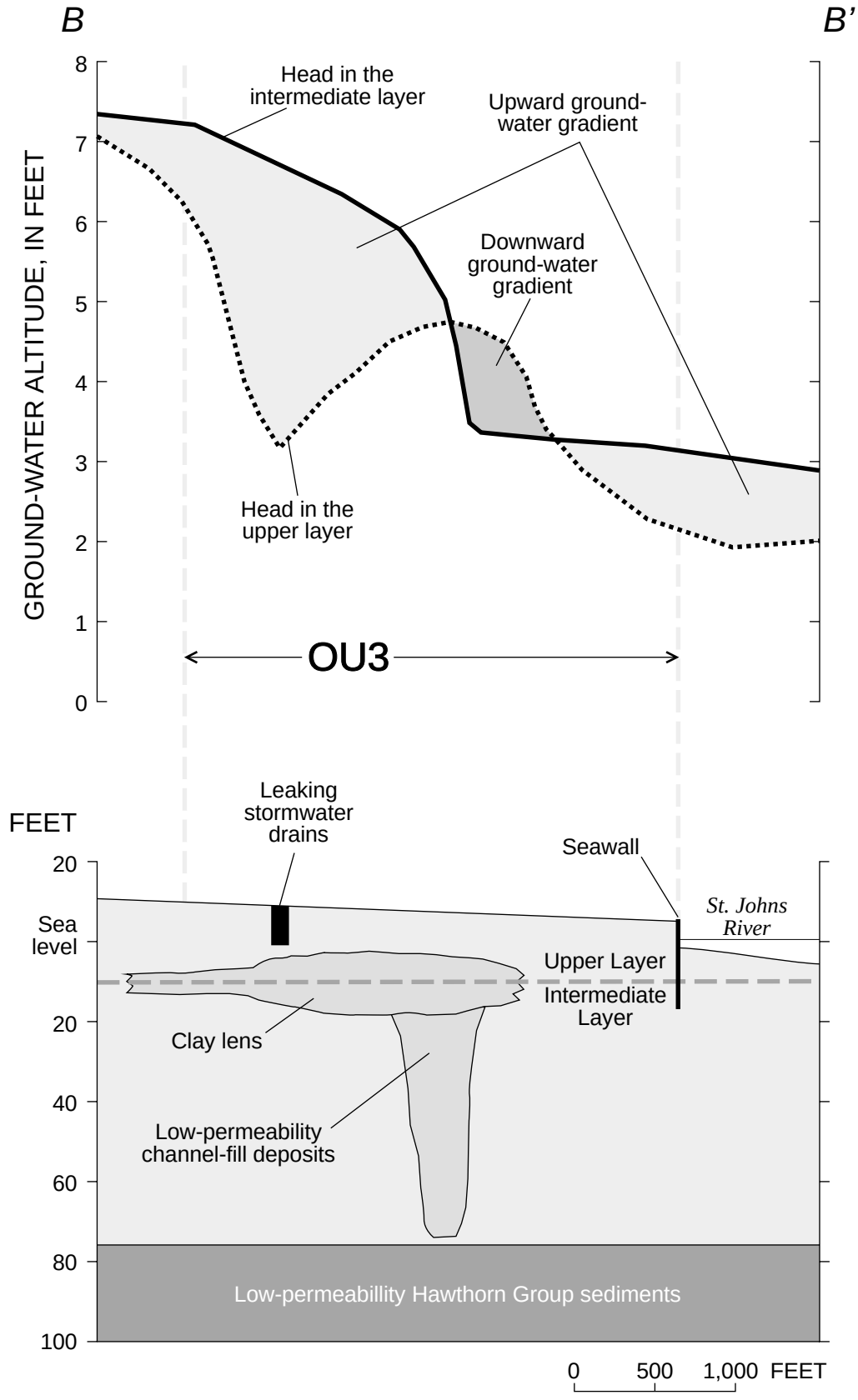


Figure 17. Generalized hydrologic section for the subregional model.

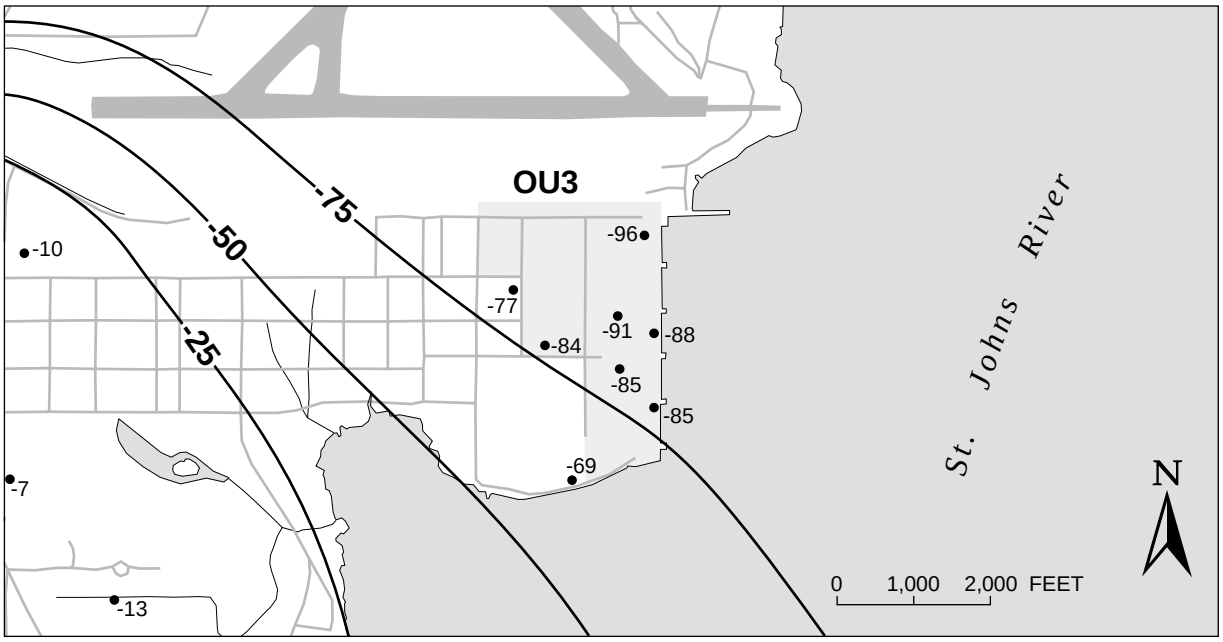


Figure 18. Top of the Hawthorn Group.

Model Construction

The location and orientation of the finite-difference grid is shown in figure 19. There are 78 rows and 148 columns of active model cells; all cells are 100 ft on each side. Vertically, the surficial aquifer was divided into two layers (fig. 20). The upper model layer represents the upper layer of the surficial aquifer and extends from land surface down to 15 ft below sea level; this layer was modeled as unconfined. The lower model layer represents the intermediate layer and extends from the bottom of the upper layer (or the bottom of the clay layer where present) down to the top of the Hawthorn Group; this layer was modeled as confined. The clay layer was not modeled explicitly, but the effect of the clay layer was simulated through the vertical leakance between the upper and intermediate layers. The seawall was simulated using the Horizontal-Flow Barrier Package documented by Hsieh and Freckleton (1993).

The northern, western, and southern boundaries of the model are no flow and were positioned along ground-water divides or flow lines delineated with the regional model (fig. 7). The eastern model boundary is also no flow and is positioned near the center of the St. Johns River. This boundary was positioned away from the shoreline so that the model could simulate the upward seepage of ground water through the bottom of the river. The base of the surficial aquifer was simulated as a no-flow boundary because it is underlain by the low-permeability sediments of the Hawthorn Group. There is little, if any, vertical flow between the surficial aquifer and the Hawthorn Group.

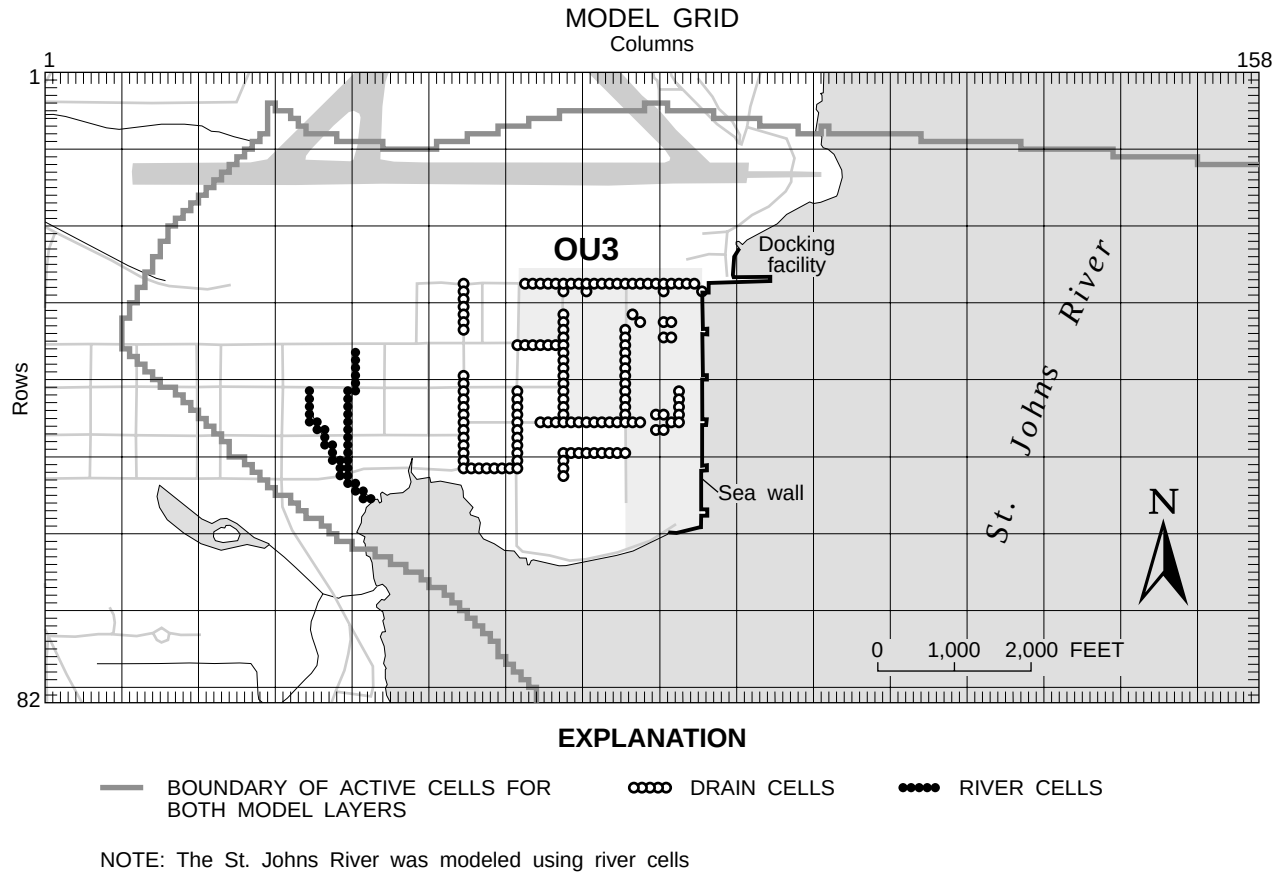


Figure 19. Location and orientation of the subregional model finite-difference grid.

The MODFLOW River Package was used to simulate the presence of the St. Johns River and the two small ditches (fig. 19); both the St. Johns River and small ditches were simulated in the upper layer of the model. The riverbed conductance for the St. Johns River was calculated using a riverbed thickness of 1 ft over the entire area of each cell. The initial riverbed conductance was 10 ft^2/d, which was the calibrated value from the regional model. The altitude of the bottom of the river was taken from USGS topographic maps and a stage of 1 ft above sea level was assumed. Conductance for the two small ditches was calculated using a thickness of 1 ft and a width of 10 ft. The initial conductance was 4 ft^2/d, which was the calibrated value from the regional model. The altitude of the stage and bottom of the two ditches was estimated from the topographic maps and field observations.

The MODFLOW Drain Package was used to simulate the presence of the stormwater drains in the upper layer. The altitude relative to sea level of the bottom of the drains was determined where manholes allowed access. The altitudes between manholes was extrapolated from the measured values. The conductance of the drains was varied during model calibration.

The initial rate and distribution of recharge was taken from the calibrated regional model and ranged from 13.0 in/yr in irrigated areas to 0.05 in/yr in paved areas. The initial horizontal hydraulic conductivity for the upper layer was set at 0.5 ft/d for all of OU3 (and the entire eastern half of the subregional model area) based on the results of the aquifer and slug tests discussed previously. The transmissivity of the intermediate layer outside the low-permeability channel-fill deposits was calculated using a horizontal hydraulic conductivity of 20 ft/d (the value determined by aquifer testing); within the channel-fill deposits the horizontal hydraulic was assumed to be 0.2 ft/d or two orders of magnitude lower.

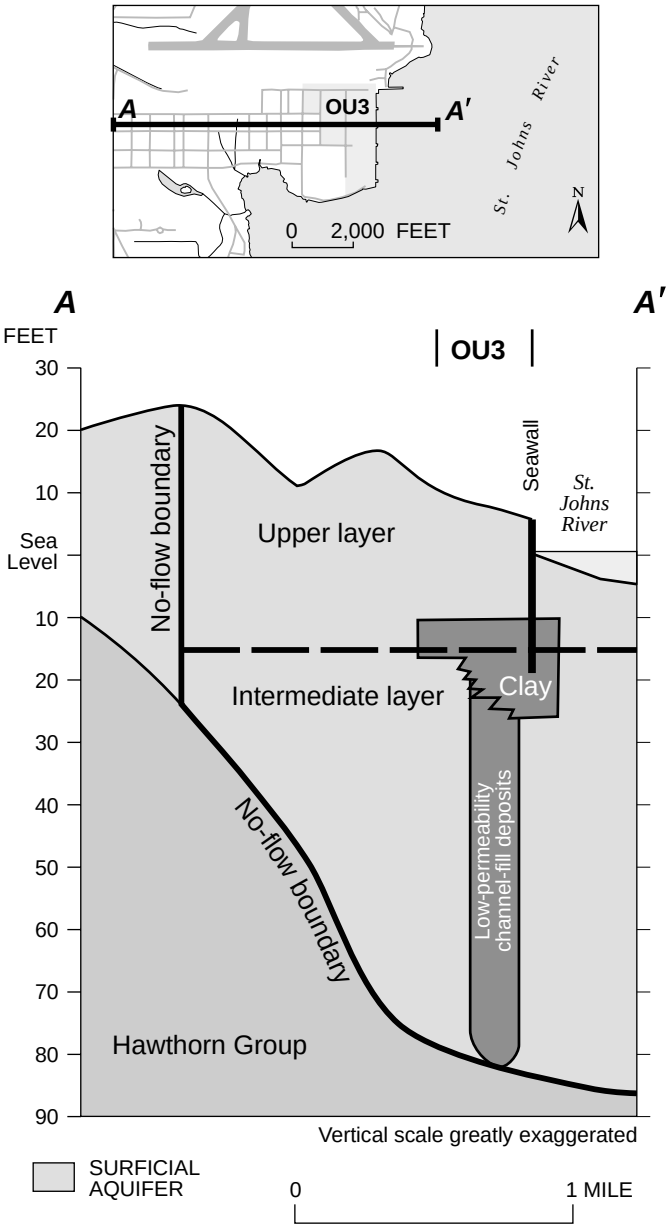


Figure 20. Generalized hydrologic section for the subregional model.

Model Calibration

The model was calibrated to the head data collected on October 29 and 30, 1996. Steady-state ground-water flow conditions were assumed for reasons discussed earlier. The calibration strategy was to match simulated heads in both the upper and intermediate layers to within 1 ft of the measured values. The location of wells with measured heads used for calibration of the upper layer are shown in figure 10 (only wells within the subregional model boundary were used) and for the intermediate layer are shown in figure 11. Ideally, there would also be a match of simulated flows in the river cells to field measurements; however, due to the difficulty of measurement, no flow rate was determined in the small ditches within the subregional model area and the rate of discharge of ground water to the St. Johns River is unknown. All of the available streamflow measurements fell outside the subregional model area boundary. For these reasons, there were no discharge measurements to compare with simulated values during calibration. Fortunately, the hydraulic conductivities in both the upper and intermediate layers were determined by aquifer testing, thus constraining the model solution.

Calibration of the model was achieved by varying recharge, hydraulic conductivity in the upper layer (within a narrow range of the values determined by aquifer and slug tests), transmissivity of the low-permeability channel-fill deposits in the intermediate layer, vertical leakance, riverbed conductance, and drain conductance. During the calibration process, changes in the recharge rates in the subregional model were also applied to the regional model. If the positions of the ground-water divides or flow lines in the regional model shifted, then the boundaries of the subregional model were moved correspondingly; this was an iterative process and done to ensure that the boundaries of the subregional model remained as "no-flow."

After calibration, all of the model simulated heads matched the measured heads within the calibration criterion of 1 ft, and 48 of 67 simulated heads (72 percent) were within 0.5 ft of the corresponding measured values. Figure 21 shows a comparison of the measured and simulated heads. If the model simulated heads had matched the measured values exactly, then all the points would lie on the 45 degree line (line of equality).

The only change to the simulated recharge rate during calibration was an increase from 0.05 to 0.4 in/yr in the paved area at and around OU3 (fig. 22). The increase was needed to raise the simulated heads at OU3. The relatively low recharge rate of 0.4 in/yr is believed to be reasonable, because this area is largely paved and runoff is carried away by the stormwater drainage system. The horizontal hydraulic conductivities at OU3 were determined by aquifer tests and the simulated horizontal hydraulic conductivities were set at or near these values; because of this, the recharge rate at OU3 could only be varied within a narrow range during calibration.

The model simulated horizontal hydraulic conductivity distribution for the upper layer is shown in figure 23. In the northern central part of the subregional model area the hydraulic conductivity is 0.5 ft/d, which is very nearly the value of 0.6 ft/d determined by the multiple-well aquifer test. The hydraulic conductivity in the southern part of OU3 was increased slightly to 1.0 ft/d to lower the simulated heads in this area. In the western part of the subregional model area, the hydraulic conductivity was 7.5 ft/d which was the calibrated value for the regional model and near the measured value of 5.0 ft/d determined at OU1.

The model-simulated vertical leakance between the upper and intermediate layers is shown in figure 24. Over most of the modeled area, the vertical leakance ranged from $4.0x10^{-4}$ to $4.0x10^{-5}$ d^{-1}, which is roughly equivalent to a vertical hydraulic conductivity that is two to three orders of magnitude lower than the horizontal hydraulic conductivity. Where the clay layer is present, the vertical leakance is $1.0x10^{-6}$ d^{-1}, which is roughly equivalent to a vertical hydraulic conductivity that is five orders of magnitude lower than the horizontal conductivity. In the area that was dredged, the vertical leakance was adjusted to $4.3x10^{-2}$ d^{-1} which reflects the possible disturbance of the clay layer in this area.

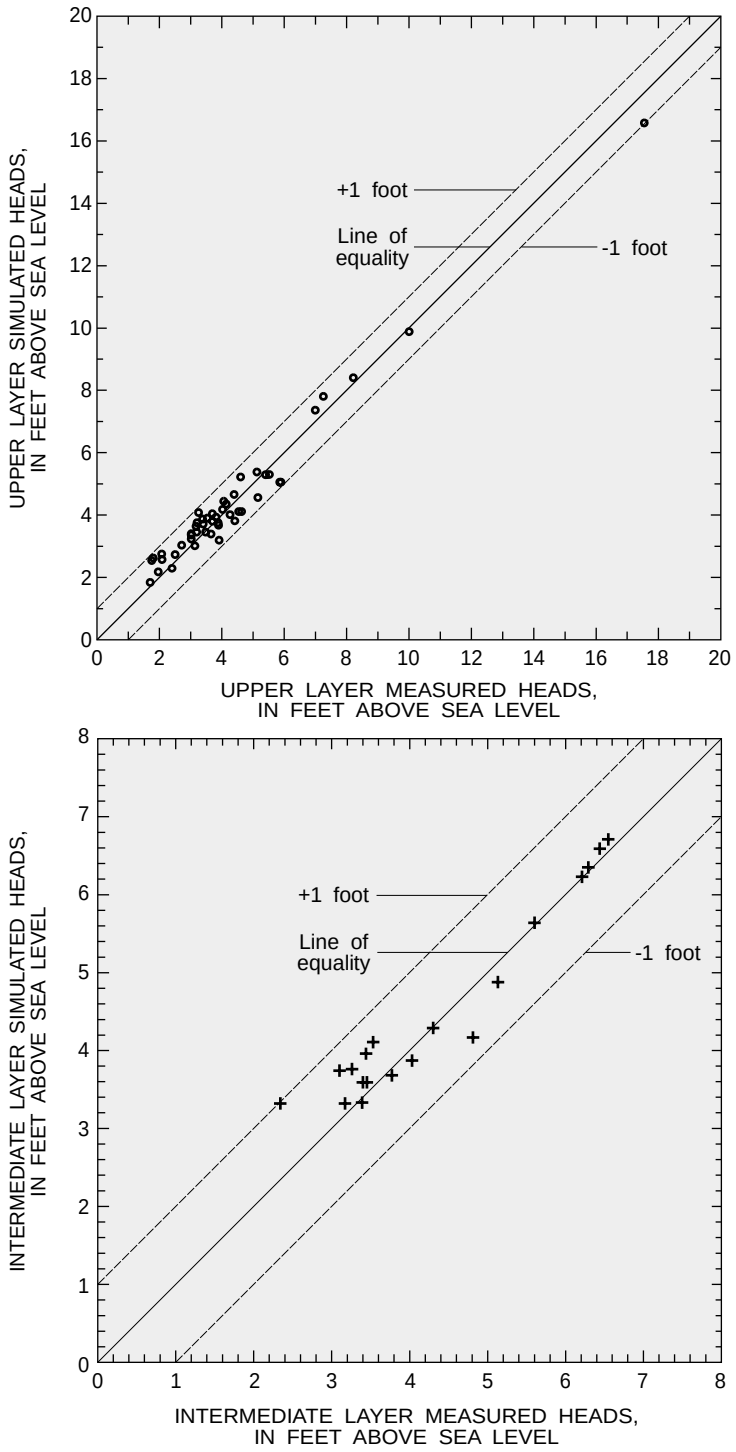
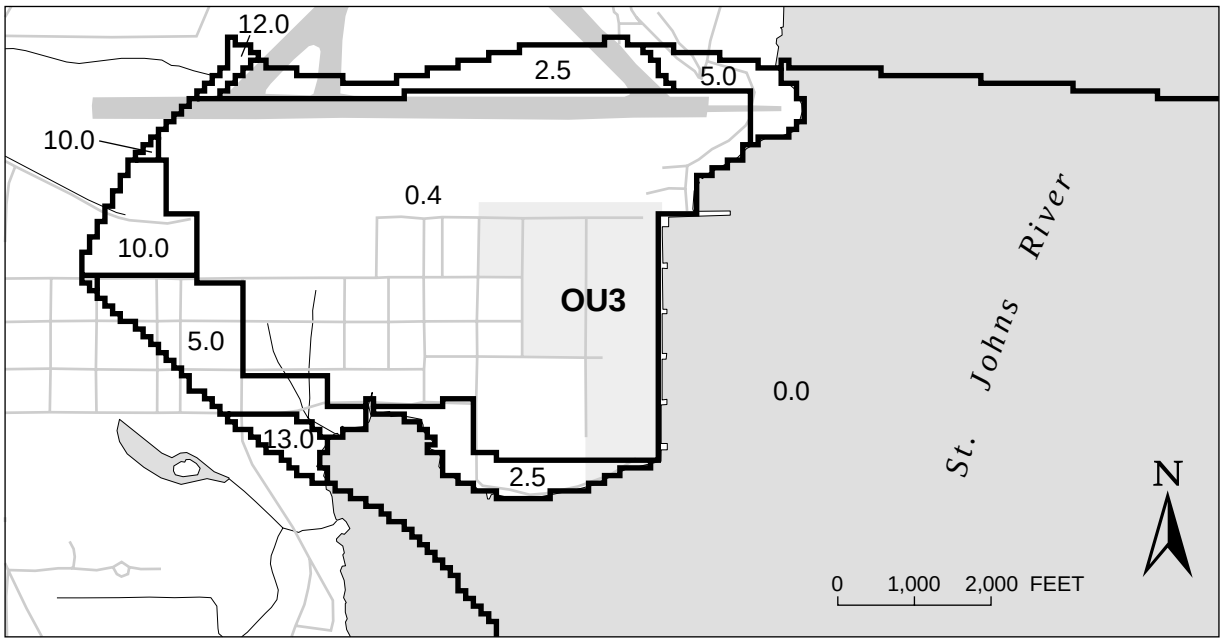


Figure 21. Comparison of measured and simulated heads for the subregional model.

The model-simulated transmissivity in the intermediate layer is shown in figure 25. The transmissivity increases from less than 200 ft^2/d on the western boundary to about 1,200 ft^2/d at OU3. The increase from west to east is a result of the thickening of the intermediate layer due to the deepening of the top of the Hawthorn Group. The transmissivity (except in the low-permeability channel-fill deposits) was calculated using a

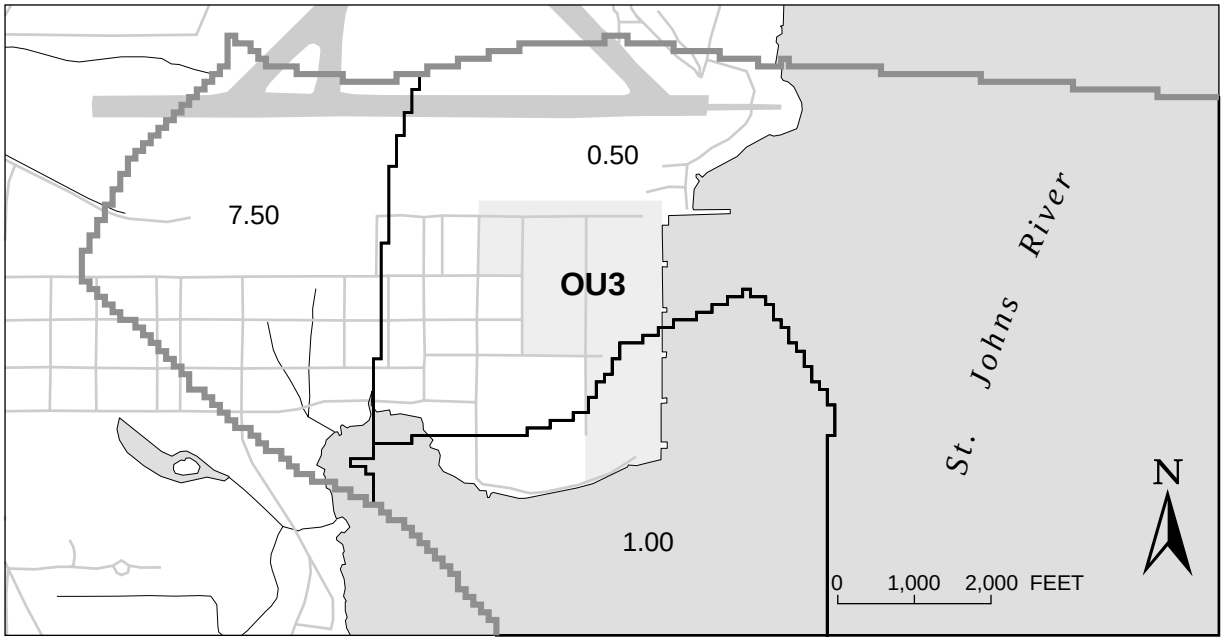


EXPLANATION

BOUNDARY OF RECHARGE ZONES IN MODEL

2.5 RECHARGE RATES—Model simulated, values in inches per year

Figure 22. Simulated recharge rates for the subregional model.



EXPLANATION

SUBREGIONAL STUDY AREA AND SUBREGIONAL MODEL BOUNDARY

7.50 MODEL-SIMULATED HORIZONTAL HYDRAULIC CONDUCTIVITY IN THE UPPER LAYER—In feet per day

Figure 23. Simulated horizontal hydraulic conductivity of the upper layer of the subregional model.

constant hydraulic conductivity of 20 ft/d, which was the value determined by aquifer testing. The transmissivity of the low-permeability channel-fill deposits was determined during model calibration to be 25 ft^2/d, yielding a hydraulic conductivity of 0.4 ft/d. The low transmissivity was required to match the steep potentiometric gradient within the channel-fill deposits.

The riverbed conductance for the St. Johns River was decreased from the regional model value of 10 to 8 ft^2/d during calibration, except in the area of the docking facility where the conductance was increased to 60 ft^2/d to reflect the disturbance and removal of riverbed sediments during dredging. The conductance of the small ditches was not changed from the initial value of 4 ft^2/d. The calibrated conductances of the stormwater drains ranged from 5 to 20 ft^2/d.

The simulated water table for the upper layer is shown in figure 26. The water table slopes toward the St. Johns River except in areas that are influenced by the leaking stormwater drains. Almost all of the simulated drains caused some depression in the water-table surface because they are removing ground water from the upper layer of the aquifer. The presence of the seawall cause elevated heads to occur directly adjacent to the St. Johns River in the central and northern parts of OU3. The heads are relatively higher in this area because the seawall extends downward into the clay and prevents ground water from moving easily under the seawall and discharging to the St. Johns River. Along the southern end of the seawall, the heads are lower because the clay is much thinner and less continuous, thus allowing ground water to move under the wall. There is some evidence that seepage also occurs through joints in the seawall.

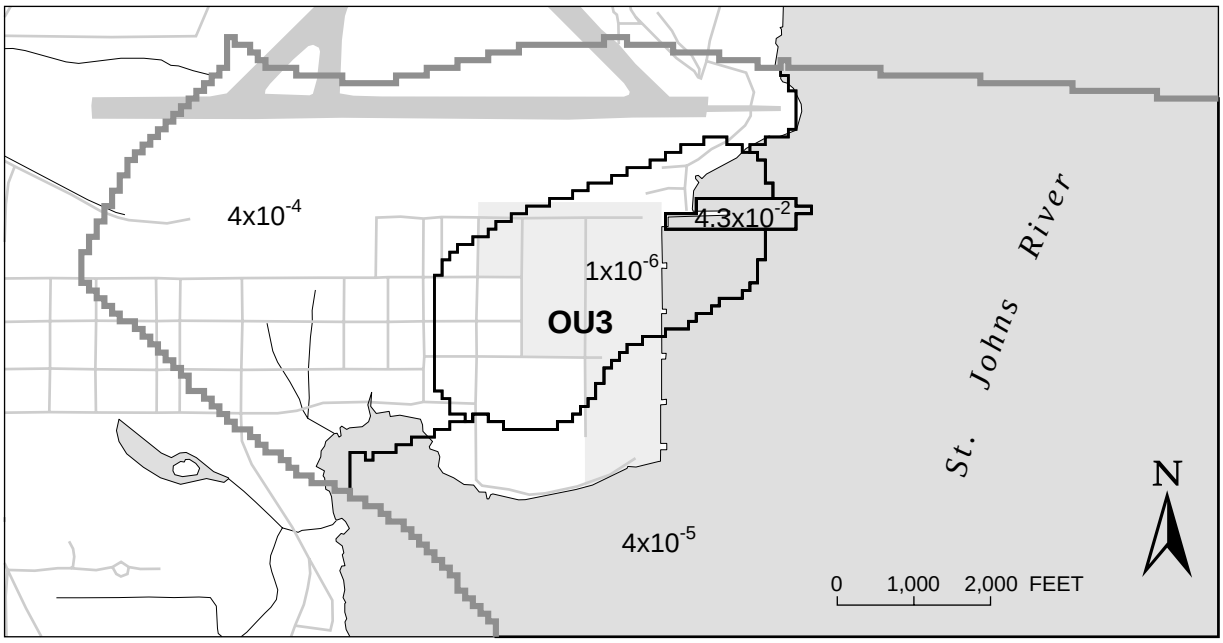
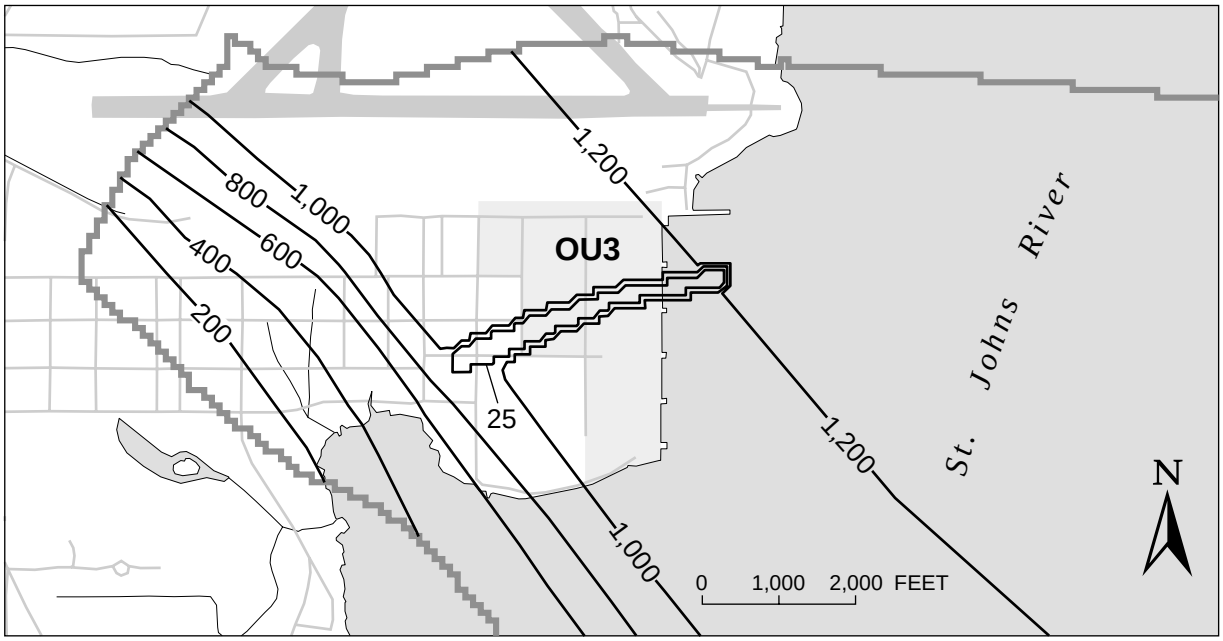


Figure 24. Simulated vertical leakance between the upper and the intermediate layers of the subregional model.

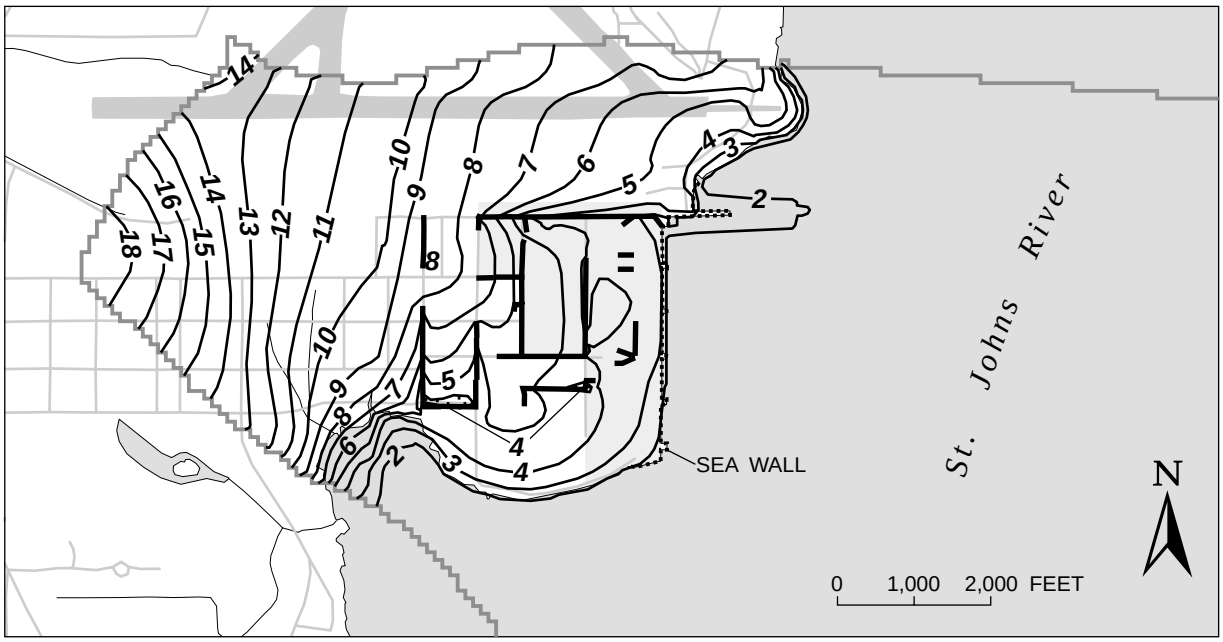


EXPLANATION

SUBREGIONAL STUDY AREA AND SUBREGIONAL MODEL BOUNDARY

—200— MODEL-SIMULATED TRANSMISSIVITY IN THE INTERMEDIATE LAYER—Values in feet squared per day. Contour interval variable

Figure 25. Simulated transmissivity for the intermediate layer of the subregional model.



EXPLANATION

SUBREGIONAL STUDY AREA AND SUBREGIONAL MODEL BOUNDARY

—4— SIMULATED WATER TABLE CONTOUR—Shows model simulated head in the upper layer. Contour interval 1 foot. Datum is sea level

SIMULATED LEAKING STORMWATER DRAINS

Figure 26. Simulated water table surface of the upper layer of the subregional model.

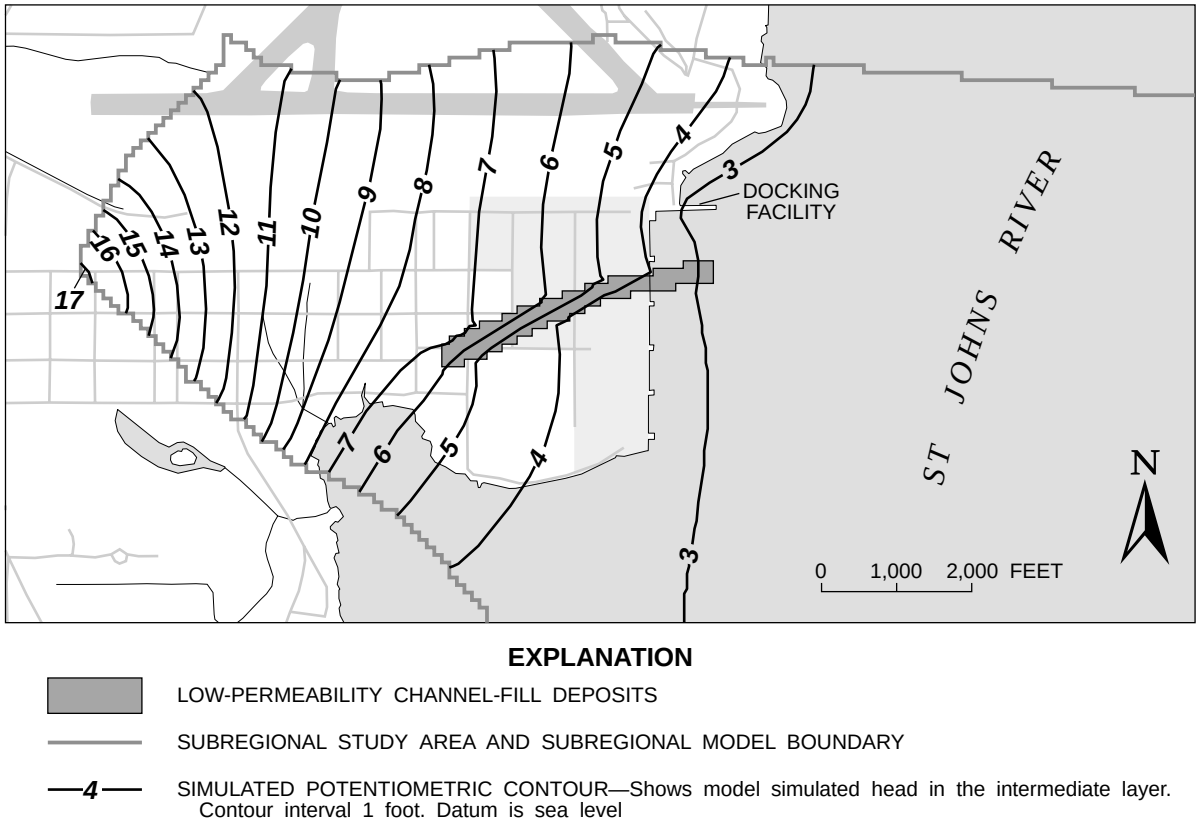
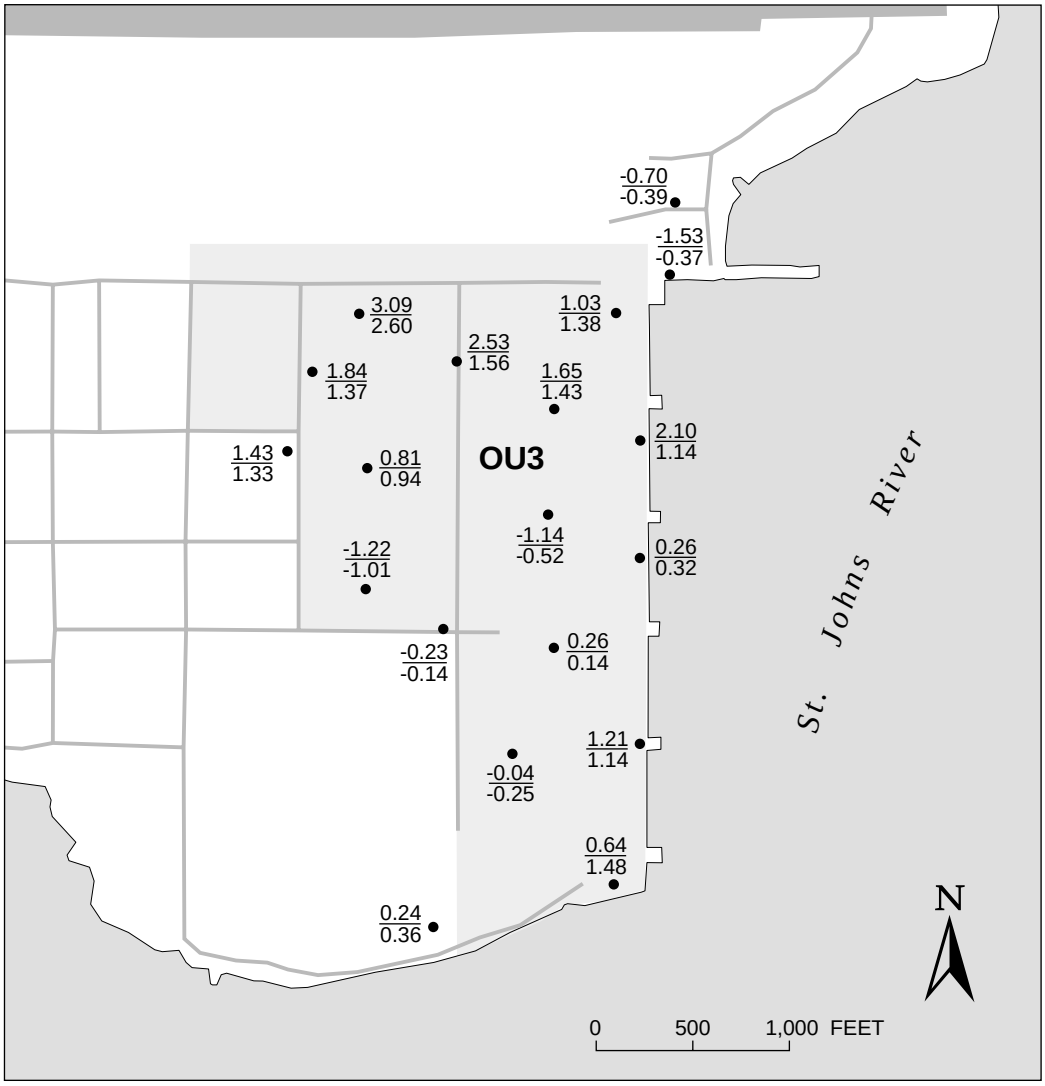


Figure 27. Simulated potentiometric surface of the intermediate layer of the subregional model.

The simulated potentiometric surface for the intermediate layer slopes toward the St. Johns River (fig. 27). The presence of the low-permeability channel-fill deposits is reflected in the bending of the contours in the central part of OU3; the result is a steeper slope of the surface in the northern half of OU3 than in the southern half. The increased vertical leakance between the upper and intermediate layers in the vicinity of the docking facility allows ground water to flow more easily upward from the intermediate layer; this is indicated by a slight convergence of the simulated 3- and 4-ft contours at the facility. The measured and model-simulated head differences between intermediate and upper layers are shown in figure 28.

Ground-Water Budget

The USGS program ZONEBUDGET (Harbaugh, 1990) was used to calculate the model-simulated inflows and outflows for the subregional model area (table 3). The total rate of recharge to the subregional model was 0.171 ft^3/s; this was the only source of water to the subregional model. Most of the discharge was to the St. Johns River at a rate of 0.145 ft^3/s. The total discharge to the lined ditches was 0.012 ft^3/s and the total discharge to the stormwater drains was 0.014 ft^3/s. There are 1,250 ft of stormwater drains simulated in the model, giving an average simulated leakage rate of 0.0011 ft^3/s per 100 ft of drain.



EXPLANATION

0.24 / 0.36 — MEASURED AND MODEL-SIMULATED HEAD DIFFERENCES—Upper value is the measured head difference, in feet, between the intermediate and upper layers of the surficial aquifer. Lower value is the simulated difference. Positive values indicate an upward gradient, negative values indicate a downward gradient

Figure 28. Measured and model-simulated head differences between the intermediate and upper layers of the subregional model.

Table 3. Simulated ground-water inflows and outflows for the subregional model.

[ft^3/s, cubic feet per second]

Ground-water source or sink	Flow rate into the model (ft^3/s)	Flow rate out of the model (ft^3/s)
Recharge	0.171	0
St. Johns River	0	0.145
Lined ditches	0	0.012
Stormwater drains	0	0.014
Total	0.171	0.171

Sensitivity Analysis

Sensitivity tests were conducted to determine the effect of changes in model input parameters on the model calibration. Tests were conducted by increasing (or decreasing) each parameter by 50 percent; other parameters were unchanged. Parameter changes resulted in the model simulating a new distribution of heads, and the effect was judged by determining the number of simulated heads that no longer remained within 1.0 ft of the measured values (table 4). Input parameters tested were horizontal hydraulic conductivity of the upper layer, transmissivity of the intermediate layer, vertical leakance, recharge, riverbed conductance, and drain conductance. All of the measured heads used for model calibration were also used for sensitivity analyses.

Table 4. Summary of sensitivity analyses for the subregional model

[*indicates parameter is multiplied by the number to the right].

Parameter changed	Number of simulated heads in the upper layer that exceeded the calibration criterion of 1.0 foot	Number of simulated heads in the intermediate layer that exceeded the calibration criterion of 1.0 foot	Total
Calibrated Model	0	0	0
Recharge * 0.5	18	12	30
Recharge * 1.5	20	17	37
Riverbed conductance * 0.5	10	11	21
Riverbed conductance * 1.5	3	1	4
Drain conductance * 0.5	8	1	9
Drain conductance * 1.5	2	0	2
Transmissivity of intermediate layer * 0.5	6	5	11
Transmissivity of intermediate layer * 1.5	5	1	6
Horizontal hydraulic conductivity of upper layer * 0.5	7	1	8
Horizontal hydraulic conductivity of upper layer * 1.5	3	0	3
Vertical leakance * 0.5	2	4	6
Vertical leakance * 1.5	3	0	3

The model was sensitive to recharge-rate changes, because recharge was the only source of water to the model. Decreasing the recharge rate by 50 percent caused the total number of simulated heads exceeding the error criterion to increase from 0 to 30 (out of 67). Increasing the recharge rate by 50 percent caused the number of heads exceeding the error criterion to increase from 0 to 37.

Decreasing the riverbed conductance caused the simulated heads to rise, because a larger gradient was necessary to move water from the aquifer to the river. A decrease of 50 percent caused the total number of simulated heads exceeding the error criterion to increase from 0 to 21. In contrast, the model was less sensitive to increases in riverbed conductance. An increase of 50 percent caused the number of simulated heads exceeding the error criterion to increase from 0 to 4.

Decreasing the drain conductance caused the simulated heads in the vicinity of the drains to rise, because a larger vertical gradient developed between the drains and the aquifer. A decrease of 50 percent caused the number of simulated heads exceeding the error criterion to increase from 0 to 8 in the upper layer. The model was less sensitive to an increase in drain conductance. An increase of 50 percent caused the number of simulated heads exceeding the error criterion in the upper layer to increase from 0 to 2. As expected, varying the drain conductance had little effect on the heads in the intermediate layer.

Decreasing the transmissivity in the intermediate layer caused the simulated heads in the intermediate layer to rise, and this caused a corresponding rise in the upper layer. A decrease of 50 percent caused the total number of simulated heads that exceeded the error criterion to increase from 0 to 11. The model was less sensitive to an increase in transmissivity. An increase of 50 percent caused six of the simulated heads to exceed the error criterion.

Decreasing the conductivity in the upper layer caused the simulated heads to rise because larger horizontal gradients were needed to move ground water through the upper layer of the aquifer. A decrease of 50 percent caused the number of simulated heads in the upper layer that exceeded the error criterion to increase from 0 to 7. The model was less sensitive to increases in horizontal hydraulic conductivity. An increase of 50 percent caused three of the simulated heads to exceed the error criterion.

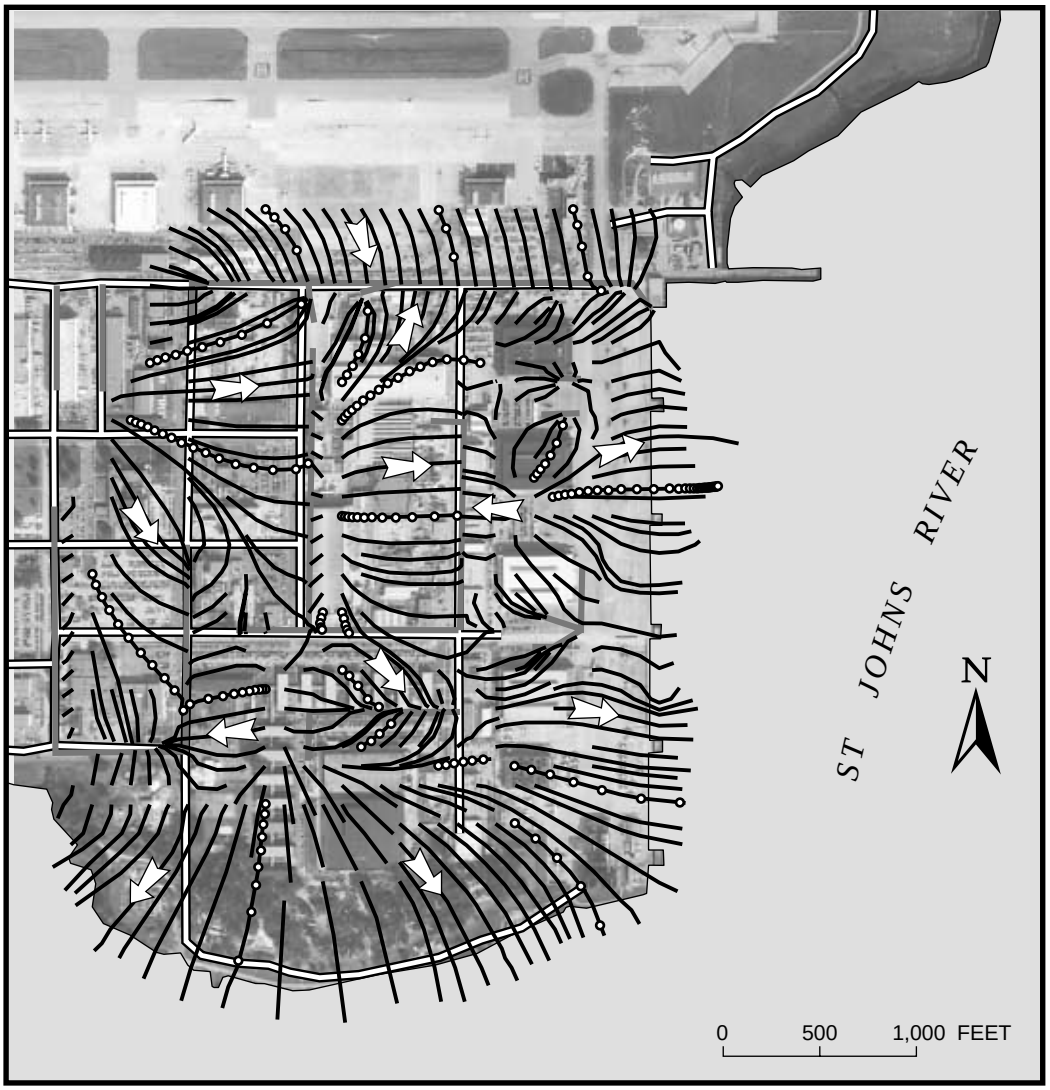
Decreasing the vertical leakance by 50 percent caused the total number of simulated heads that exceeded the error criterion to increase from 0 to 6. An increase of 50 percent caused the number of heads that exceed the error criterion to increase from 0 to 3 in the upper layer, whereas the intermediate layer was unaffected.

Flow Path Analysis

The direction and rate of ground-water movement was computed using the USGS program MODPATH (Pollock, 1989). This program uses particle-tracking techniques in combination with the MODFLOW computed flow rates between model cells. Particle starting locations were specified and the particles were then tracked forward to areas of discharge. A porosity of 25 percent was assumed for both the upper and intermediate layers of the surficial aquifer; other porosities would give exactly the same direction of ground-water flow, but the rate of movement would change. Reducing the simulated porosity by half would double the simulated velocity. Likewise, doubling the simulated porosity would decrease the simulated velocity by half.

Simulated ground-water flow pathlines for the upper layer are shown in figure 29. At OU3, the leaking storm-water drains divide ground-water flow into several small areas with distinct flow directions. The ground-water velocities are very low, averaging about 2 ft/yr. (The distance between dots along selected pathlines indicates 40 years of traveltime.) These slow velocities are primarily the result of the low horizontal hydraulic conductivity and, secondarily, the result of low hydraulic gradients due to the low recharge rate in the extensively paved areas.

Simulated ground-water flow in the intermediate layer beneath OU3 is generally eastward toward and discharges into the St. Johns River (fig. 30). Ground-water flow velocities are significantly higher in this layer than in the upper layer. North of the low-permeability channel-fill deposits, the velocity is about 35 ft/yr; south of the deposits, about 12 ft/yr. Velocities in the intermediate layer are higher in the northern part of OU3 because the horizontal hydraulic gradients are higher, as discussed earlier. Within the low-permeability channel-fill deposits, the ground-water flow changes direction and slows down significantly. The flow lines converge toward the docking facility where ground water is discharging due to the dredging that occurred previously.



EXPLANATION

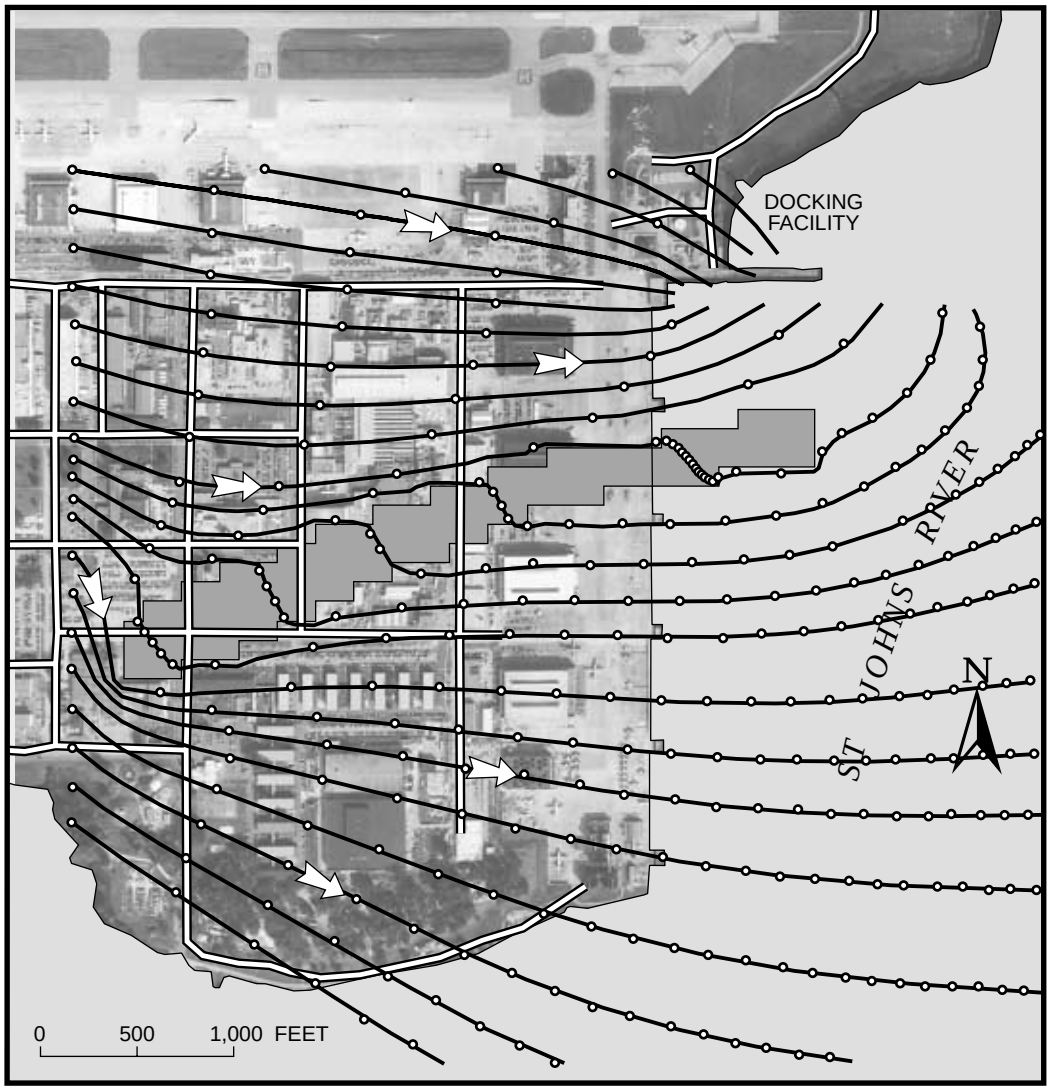
PARTICLE PATHLINE—Shows simulated ground-water flow path in the upper layer. Distance between dots represents a travel time of 40 years

STORMWATER DRAIN ASSUMED TO BE LEAKING

GROUND-WATER FLOW ARROW—Shows direction of ground-water flow along pathlines

Figure 29. Particle pathlines representing ground-water flow directions in the upper layer of the surficial aquifer at Operable Unit 3.

Simulated ground-water pathlines are shown in a generalized section in figure 31. The generalized section is along row 40, between columns 58 and 107; the pathlines are projected along this row by the method described in Pollock (1989). As discussed above, the leaking stormwater drains divide the flow in the upper layer into several small areas where ground water moves toward and discharges into a nearby drain. In contrast, the flow in the intermediate layer is more regional. In this layer, ground water moves laterally under OU3 to beneath the St. Johns River, then vertically upward through the upper layer to discharge through the river bottom.



EXPLANATION

LOW-PERMEABILITY CHANNEL-FILL DEPOSITS

PARTICLE PATHLINE—Shows simulated ground-water flow path in the intermediate layer. Distance between dots represents a travel time of 20 years

GROUND-WATER FLOW ARROW—Shows direction of ground-water flow along pathlines

Figure 30. Particle pathlines representing ground-water flow directions in the intermediate layer of the surficial aquifer at Operable Unit 3.

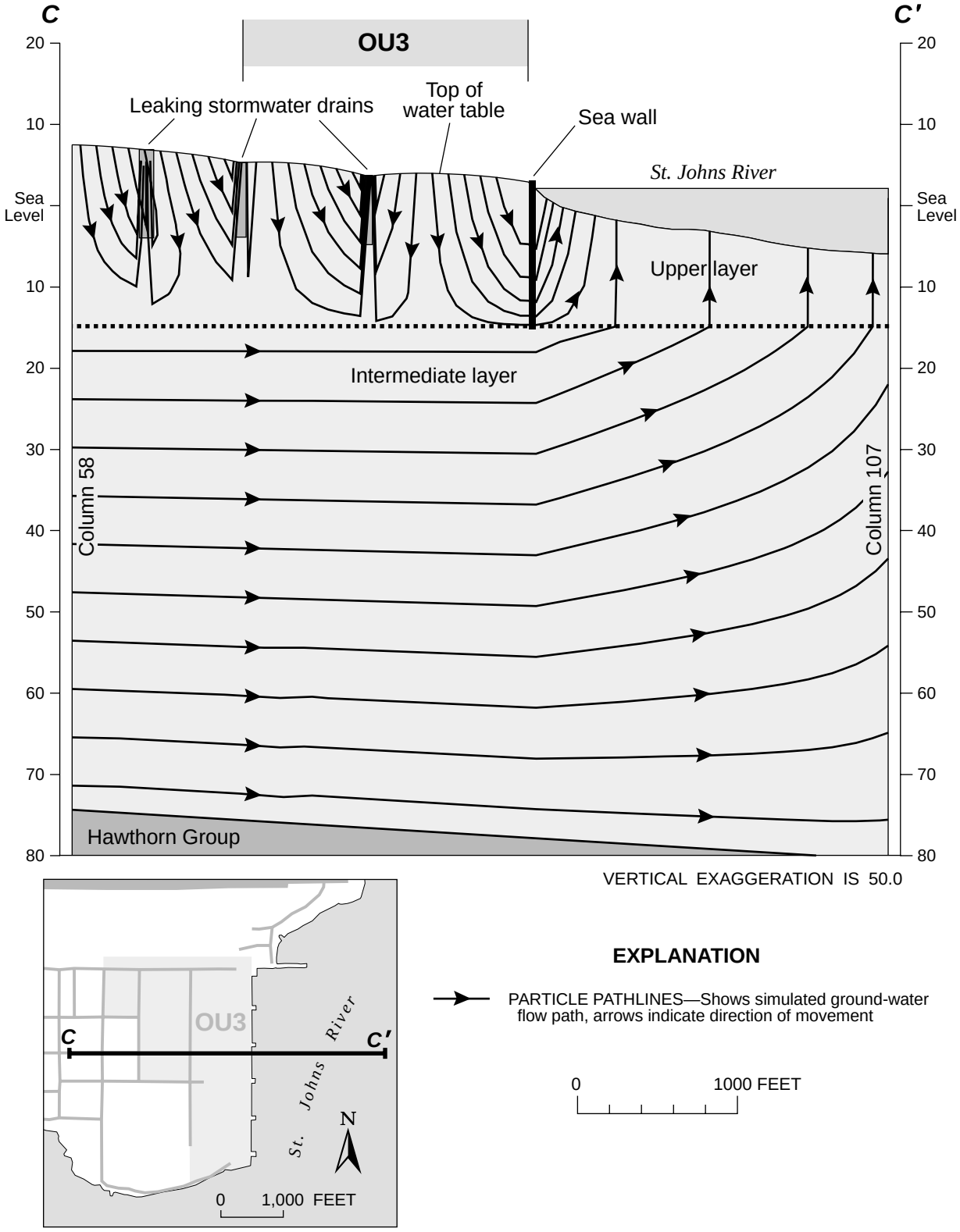


Figure 31. Generalized section showing particle pathlines at Operable Unit 3.

SUMMARY AND CONCLUSIONS

The Naval Air Station, Jacksonville occupies 3,800 acres adjacent to the St. Johns River in Duval County, Fla. OU3 occupies 134 acres on the eastern side of the Station and has been used for industrial and commercial purposes since World War II. Ground water contaminated by chlorinated organic compounds has been detected in the surficial aquifer at OU3. The Navy and USGS conducted a cooperative hydrologic study to evaluate the potential for ground-water discharge to the neighboring St. Johns River.

At the Station, the surficial aquifer is exposed at land surface and thus forms the uppermost permeable unit. The aquifer is composed of sedimentary deposits of Pliocene to Holocene age. These deposits range in thickness from 30 to 100 ft and consist of unconsolidated silty sands interbedded with local thin beds of clay. The low-permeability clays of the Hawthorn Group form the base of the aquifer.

The USGS previously conducted a ground-water investigation at the Station that included the development and calibration of a 1-layer regional ground-water flow model using MODFLOW. For this investigation, the regional model was recalibrated using additional data collected since the original calibration. After recalibration, simulated heads matched measured heads in 130 of 131 wells to within the calibration criterion of 2.5 ft. The recalibrated model was then used to establish the boundaries for a smaller subregional model at OU3.

Within the subregional OU3 model area, the surficial aquifer is composed of distinct upper and intermediate layers. The upper layer extends from land surface to a depth of approximately 15 ft below sea level; the intermediate layer extends from the upper layer down to the top of the Hawthorn Group. In the northern and central parts of OU3, the upper and intermediate layers are separated by a low-permeability clay layer. Horizontal hydraulic conductivities in the upper layer were determined by aquifer tests and ranged from 0.19 to 3.8 ft/d. The horizontal hydraulic conductivity in the intermediate layer was determined to be 20 ft /d from one aquifer test.

An extensive stormwater drainage system is present at OU3 and the surrounding area. Some of the stormwater drains have been documented to be draining ground water and some are suspected of draining ground water from the upper layer of the surficial aquifer. The bottom of and water-level surface in the drains are below the water table; thus, the drains can remove ground water from the aquifer but cannot act as a source of water to the aquifer. The depth to the bottom of the drains varies, but is approximately 5 to 10 ft below land surface.

The subregional model area was divided into 78 rows and 148 columns of square model cells that were 100 ft on each side. Vertically, the surficial aquifer was divided into two model layers. The upper model layer represents the upper layer of the aquifer and the lower model layer represents the intermediate layer. Steady-state ground-water flow conditions were assumed. The model was calibrated to head data collected on October 29 and 30, 1996. After calibration, the model matched all 67 measured heads to within the calibration criterion of 1 ft; and 48 of 67 simulated heads (72 percent) were within 0.5 ft.

Model-simulated recharge rates ranged from 0.4 in/yr in areas that were largely paved to 13.0 in/yr in irrigated areas. Simulated hydraulic conductivities in the upper layer at OU3 ranged from 0.5 ft/d in the north to 1.0 ft/d in the south. Simulated vertical leakance between the upper and intermediate layers ranged from 1.0×10^{-6} d^{-1} in an area with low-permeability clays to 4.3×10^{-2} d^{-1} in an area that had been dredged. Simulated transmissivities in the intermediate layer ranged from 25 ft^2/d in an area of low-permeability channel-fill deposits to about 1,200 ft^2/d in most of OU3. Simulated riverbed conductances ranged from 4 to 60 ft^2/d and simulated bottom conductances of the stormwater drains ranged from 5 to 20 ft^2/d.

The direction and velocity of ground-water flow was determined using particle tracking techniques. Ground-water flow in the upper layer was generally eastward toward the St. Johns River. However, leaking stormwater drains at OU3 locally modified the flow system to create small areas with flow directions diverted to the drains. The flow velocities in the upper layer at OU3 were slow, averaging about 2 ft/yr. The slow velocities were primarily the result of the low horizontal hydraulic conductivity and, secondarily, the result of the low recharge rate. The simulated rate at which ground water leaked into the stormwater drains was low, averaging about 0.0011 ft^3/s per 100 ft of stormwater drainage conduit. Ground-water flow in the intermediate layer moved eastward beneath OU3 toward, and discharging into, the St. Johns River. Flow velocities were significantly higher in this layer than in the upper layer. The velocity was about 35 and 12 ft/yr in the northern and southern parts of OU3, respectively.

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APPENDIX C

VALIDATED CHEMICAL DATA

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. PATE** **DATE:** **JULY 7, 2011**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / SVOC / PAH / PCB / PET**
INORGANIC DATA VALIDATION – METALS
NAS JACKSONVILLE, CTO 0112
SAMPLE DELIVERY GROUP (SDG) – JAX001

SAMPLES: 5 / Aqueous / VOC

JAX-45-B200-MW01D-20110504 JAX-45-B200-MW01S-20110504
JAX-45-B200-MW02D-20110504 JAX-45-B200-MW02S-20110504
TRIP BLANK

4 / Aqueous / SVOC / PAH / PCB / PET / METALS

JAX-45-B200-MW01D-20110504 JAX-45-B200-MW01S-20110504
JAX-45-B200-MW02D-20110504 JAX-45-B200-MW02S-20110504

Overview

The sample set for NAS Jacksonville, CTO 0112, SDG JAX001 consisted of four (4) aqueous environmental samples and one (1) aqueous QC trip blank sample. The samples were analyzed for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), polynuclear aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), petroleum extractable (PET), and metals as indicated above. No field duplicate sample pairs were included in the Sample Delivery Group (SDG).

The samples were collected by Tetra Tech NUS on May 4, 2011 and analyzed by Katahdin Analytical Services. The analysis was conducted in accordance with SW-846 Method 8260B, 8270C Full Scan, 8270C SIM, 8082, 6010, 7470A, and FL-PRO analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
• Initial and Continuing Calibration
* • Laboratory Blank Analyses - Organic
• Initial / Continuing / Preparation Blank Results - Metals
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

VOC

The initial calibration relative standard deviation (RSD) was greater than the 15% quality control limit for chlorodibromomethane and bromoform on instrument GCMS-T on 05/05/11 affecting sample JAX-45-B200-MW02D-20110504 dilution analysis. Non-detected dibromochloromethane and bromoform sample results were reported from the undiluted sample analysis and no validation action was taken.

The continuing calibration verification (CCV) percent difference (%D) was greater than the 20% quality control limit for chloroethane for instrument GCMS-S on 05/06/11 @ 19:22 affecting samples TRIP BLANK, JAX-45-B200-MW01D-20110504, JAX-45-B200-MW01S-20110504, JAX-45-B200-MW02D-20110504, and JAX-45-B200-MW02S-20110504. The non-detected chloroethane results for the aforementioned samples were qualified estimated, (UJ).

The CCV %D was greater than the 20% quality control limit for trichlorofluoromethane for instrument GCMS-T on 05/10/11 @ 11:23 affecting sample JAX-45-B200-MW02D-20110504 dilution analysis. The non-detected trichlorofluoromethane sample result was reported from the undiluted sample analysis and no validation action was taken.

SVOC

The initial calibration RSD was greater than the 15% quality control limit for 4-nitrophenol, benzaldehyde, and atrazine on instrument GCMS-U on 04/27/11 affecting all samples. The non-detected 4-nitrophenol, benzaldehyde, and atrazine sample results were qualified estimated, (UJ).

The CCV %D was greater than the 20% quality control limit for benzaldehyde for instrument GCMS-U on 05/11/11 @ 08:26 affecting all samples. The non-detected benzaldehyde results for the samples were qualified estimated, (UJ).

PAH

No issues were identified.

PCB

Aroclor CCV average %Ds were greater than the 15% quality control limit for Aroclor-1016 and Aroclor-1260 on 05/06/11 @ 09:50 and for Aroclor-1016 on 05/06/11 @ 17:01 on analytical column ZB-MULTIRESIDUE1 on instrument GC07 affecting the analysis of all samples. No validation action was taken as the alternate column CCV average %Ds were within the quality control limits and all sample Aroclor results were non-detected.

PET

No issues were identified.

METALS

The following contaminants were detected in the laboratory method or preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Potassium	78.26 µg/L	391.30 µg/L
Sodium	77.60 µg/L	388.00 µg/L
Iron	16.37 µg/L	81.8 µg/L
Antimony	1.979 µg/L	9.895 µg/L
Calcium	144.50 µg/L	722.50 µg/L
Magnesium	7.824 µg/L	39.120 µg/L

An action level of 5X the maximum contaminant level has been used to evaluate sample data for

blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive antimony result in sample JAX-45-B200-MW02D-20110504 was qualified non-detected, (U), as a result of blank contamination.

Additional Comments

Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, (J).

VOC sample JAX-45-B200-MW02D-20110504 was analyzed at a 10X dilution in order to quantify 1,1-dichloroethene and trichloroethene. 1,1-Dichloroethene and trichloroethene results were reported from the 10X dilution. All VOC other analytes were reported from the undiluted sample analysis.

Sample JAX-45-B200-MW01S-20110504 was analyzed both undiluted and diluted 10X for PAH analytes that exceeded the highest calibration level for the undiluted PAH sample analysis. Only the analyte results that exceeded the highest calibration level for the undiluted PAH analysis were reported from the 10X dilution PAH analysis.

Sample JAX-45-B200-MW01S-20110504 was analyzed at a 2X dilution for PET.

Executive Summary

Laboratory Performance: SVOC initial calibration RSDs greater than the quality control limit resulted in the qualification of SVOC analytes. VOC and SVOC CCV %Ds greater than the quality control limit resulted in qualification of VOC and SVOC analytes.

Other Factors Affecting Data Quality: Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, (J).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), the "National Functional Guidelines for Inorganic Review", October 2004, and Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW02D-20110504			JAX-45-B200-MW02D-20110504DL		
SDG: JAX01	LAB_ID	SE2433-2			SE2433-1			SE2433-4			SE2433-4DL		
FRACTION: OV	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	U				
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U				
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U				
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	U				
1,1-DICHLOROETHANE		0.21	U		0.21	U		56					
1,1-DICHLOROETHENE		0.35	U		0.35	U					750		
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U				
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U				
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U				
1,2-DICHLOROBENZENE		0.15	U		8.6			0.15	U				
1,2-DICHLOROETHANE		0.2	U		0.2	U		20					
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U				
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U				
1,4-DICHLOROBENZENE		0.24	U		1.7			0.24	U				
2-BUTANONE		1.3	U		1.3	U		1.3	U				
2-HEXANONE		1.7	U		1.7	U		1.7	U				
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U				
ACETONE		2.2	U		2.2	U		2.2	U				
BENZENE		0.26	U		0.34	J	P	1.1					
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U				
BROMOFORM		0.23	U		0.23	U		0.23	U				
BROMOMETHANE		0.49	U		0.49	U		0.49	U				
CARBON DISULFIDE		0.25	U		0.25	U		0.25	U				
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U				
CHLOROBENZENE		0.22	U		0.22	U		0.22	U				
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U				
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	UJ	C			
CHLOROFORM		0.32	U		0.32	U		0.32	U				
CHLOROMETHANE		0.36	U		0.36	U		0.36	U				
CIS-1,2-DICHLOROETHENE		0.21	U		13			2.2					
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U				
CYCLOHEXANE		0.31	U		1.6			0.31	U				
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U				
ETHYLBENZENE		0.21	U		10			0.21	U				
ISOPROPYLBENZENE		0.23	U		3.5			0.23	U				

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW02S-20110504			TRIP BLANK		
SDG: JAX01	LAB_ID	SE2433-3			SE2433-5		
FRACTION: OV	SAMP_DATE	5/4/2011			5/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.38	J	P	0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U	
2-BUTANONE		1.3	U		1.3	U	
2-HEXANONE		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U	
ACETONE		2.2	U		2.2	U	
BENZENE		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	U		0.25	U	
CARBON TETRACHLORIDE		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C
CHLOROFORM		0.32	U		0.32	U	
CHLOROMETHANE		0.36	U		0.36	U	
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U	
CYCLOHEXANE		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW02D-20110504			JAX-45-B200-MW02D-20110504DL		
SDG: JAX01	LAB_ID	SE2433-2			SE2433-1			SE2433-4			SE2433-4DL		
FRACTION: OV	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U				
METHYL CYCLOHEXANE		0.3	U		3.4			0.3	U				
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U				
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U				
STYRENE		0.23	U		0.23	U		0.23	U				
TETRACHLOROETHENE		0.4	U		16			0.4	U				
TOLUENE		0.27	U		24			0.36	J	P			
TOTAL XYLENES		0.25	U		44			0.25	U				
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U				
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U				
TRICHLOROETHENE		0.28	U		2.3						390		
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U				
VINYL CHLORIDE		0.25	U		0.25	U		0.7	J	P			

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW02S-20110504			TRIP BLANK		
SDG: JAX01	LAB_ID	SE2433-3			SE2433-5		
FRACTION: OV	SAMP_DATE	5/4/2011			5/1/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U	
TRICHLOROETHENE		0.31	J	P	0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW02D-20110504			JAX-45-B200-MW02S-20110504		
SDG: JAX01	LAB_ID	SE2433-2			SE2433-1			SE2433-4			SE2433-3		
FRACTION: OS	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		2.7	U		3.4	J	P	2.6	U		2.7	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		2.1	U		2.2	U		2	U		2.1	U	
2,4,5-TRICHLOROPHENOL		3.6	U		3.7	U		3.5	U		3.6	U	
2,4,6-TRICHLOROPHENOL		2.7	U		2.8	U		2.6	U		2.7	U	
2,4-DICHLOROPHENOL		3	U		3.1	U		2.9	U		3	U	
2,4-DIMETHYLPHENOL		4.4	U		12			4.2	U		4.4	U	
2,4-DINITROPHENOL		1	U		1	U		0.96	U		1	U	
2,4-DINITROTOLUENE		2.2	U		2.3	U		2.1	U		2.2	U	
2,6-DINITROTOLUENE		2	U		2.1	U		1.9	U		2	U	
2-CHLORONAPHTHALENE		2.9	U		3	U		2.8	U		2.9	U	
2-CHLOROPHENOL		3.2	U		3.3	U		3.1	U		3.2	U	
2-METHYLPHENOL		3.8	U		3.9	U		3.6	U		3.8	U	
2-NITROANILINE		1.8	U		1.8	U		1.7	U		1.8	U	
2-NITROPHENOL		2.7	U		2.8	U		2.6	U		2.7	U	
3&4-METHYLPHENOL		5.6	U		5.8	U		5.4	U		5.6	U	
3,3'-DICHLOROBENZIDINE		1.1	U		1.1	U		1	U		1.1	U	
3-NITROANILINE		1.5	U		1.5	U		1.4	U		1.5	U	
4,6-DINITRO-2-METHYLPHENOL		2	U		2.1	U		1.9	U		2	U	
4-BROMOPHENYL PHENYL ETHER		1.9	U		2	U		1.8	U		1.9	U	
4-CHLORO-3-METHYLPHENOL		3.6	U		3.7	U		3.5	U		3.6	U	
4-CHLOROANILINE		1.9	U		2	U		1.8	U		1.9	U	
4-CHLOROPHENYL PHENYL ETHER		2.2	U		2.3	U		2.1	U		2.2	U	
4-NITROANILINE		1.6	U		1.6	U		1.5	U		1.6	U	
4-NITROPHENOL		1.8	UJ	C	1.8	UJ	C	1.7	UJ	C	1.8	UJ	C
ACETOPHENONE		3.9	U		4	U		3.8	U		3.9	U	
ATRAZINE		3.3	UJ	C	3.4	UJ	C	3.2	UJ	C	3.3	UJ	C
BENZALDEHYDE		1	UJ	C	1	UJ	C	0.96	UJ	C	1	UJ	C
BIS(2-CHLOROETHOXY)METHANE		2.1	U		2.2	U		2	U		2.1	U	
BIS(2-CHLOROETHYL)ETHER		2	U		2.1	U		1.9	U		2	U	
BIS(2-ETHYLHEXYL)PHTHALATE		1.7	U		1.8	U		1.6	U		1.7	U	
BUTYL BENZYL PHTHALATE		1.9	U		2	U		1.8	U		1.9	U	
CAPROLACTAM		0.4	U		0.41	U		0.38	U		0.4	U	
CARBAZOLE		2.1	U		2.2	U		2	U		2.1	U	
DIBENZOFURAN		1.6	U		1.6	U		1.5	U		1.6	U	
DIETHYL PHTHALATE		2	U		2.1	U		1.9	U		2	U	

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW02D-20110504			JAX-45-B200-MW02S-20110504		
SDG: JAX01	LAB_ID	SE2433-2			SE2433-1			SE2433-4			SE2433-3		
FRACTION: OS	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		2	U		2.1	U		1.9	U		2	U	
DI-N-BUTYL PHTHALATE		2.5	U		4.1	J	P	2.4	U		2.5	U	
DI-N-OCTYL PHTHALATE		1.8	U		1.8	U		1.7	U		1.8	U	
HEXACHLOROBENZENE		2.1	U		2.2	U		2	U		2.1	U	
HEXACHLOROBUTADIENE		1.8	U		1.8	U		1.7	U		1.8	U	
HEXACHLOROCYCLOPENTADIENE		1.2	U		1.2	U		1.2	U		1.2	U	
HEXACHLOROETHANE		2.3	U		2.4	U		2.2	U		2.3	U	
ISOPHORONE		1.7	U		1.8	U		1.6	U		1.7	U	
NITROBENZENE		3.1	U		3.2	U		3	U		3.1	U	
N-NITROSO-DI-N-PROPYLAMINE		2	U		2.1	U		1.9	U		2	U	
N-NITROSODIPHENYLAMINE		3.7	U		3.8	U		3.6	U		3.7	U	
PENTACHLOROPHENOL		2.3	U		2.4	U		2.2	U		2.3	U	
PHENOL		1.8	U		1.8	U		1.7	U		1.8	U	

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW01S-20110504DL			JAX-45-B200-MW02D-20110504		
SDG: JAX01	LAB_ID	SE2433-2			SE2433-1			SE2433-1DL2			SE2433-4		
FRACTION: PAH	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1-METHYLNAPHTHALENE		0.069	U					12			0.065	U	
2-METHYLNAPHTHALENE		0.078	U					9.3			0.074	U	
ACENAPHTHENE		0.065	U		0.085	J	P				0.062	U	
ACENAPHTHYLENE		0.054	U		0.056	U					0.052	U	
ANTHRACENE		0.044	U		0.045	U					0.042	U	
BENZO(A)ANTHRACENE		0.046	U		0.047	U					0.14	J	P
BENZO(A)PYRENE		0.067	U		0.068	U					0.063	U	
BENZO(B)FLUORANTHENE		0.09	U		0.092	U					0.086	U	
BENZO(G,H,I)PERYLENE		0.066	U		0.067	U					0.062	U	
BENZO(K)FLUORANTHENE		0.049	U		0.05	U					0.047	U	
CHRYSENE		0.036	U		0.037	U					0.035	U	
DIBENZO(A,H)ANTHRACENE		0.071	U		0.072	U					0.067	U	
FLUORANTHENE		0.074	U		0.075	U					0.07	U	
FLUORENE		0.062	U		0.081	J	P				0.059	U	
INDENO(1,2,3-CD)PYRENE		0.052	U		0.054	U					0.05	U	
NAPHTHALENE		0.065	U					52			0.062	U	
PHENANTHRENE		0.052	U		0.052	U					0.049	U	
PYRENE		0.06	U		0.061	U					0.057	U	

PROJ_NO: 01511 SDG: JAX01 FRACTION: PAH MEDIA: WATER	NSAMPLE	JAX-45-B200-MW02S-20110504
	LAB_ID	SE2433-3
	SAMP_DATE	5/4/2011
	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1-METHYLNAPHTHALENE	0.069	U	
2-METHYLNAPHTHALENE	0.078	U	
ACENAPHTHENE	0.065	U	
ACENAPHTHYLENE	0.054	U	
ANTHRACENE	0.044	U	
BENZO(A)ANTHRACENE	0.046	U	
BENZO(A)PYRENE	0.16	J	P
BENZO(B)FLUORANTHENE	0.09	U	
BENZO(G,H,I)PERYLENE	0.066	U	
BENZO(K)FLUORANTHENE	0.049	U	
CHRYSENE	0.036	U	
DIBENZO(A,H)ANTHRACENE	0.071	U	
FLUORANTHENE	0.074	U	
FLUORENE	0.062	U	
INDENO(1,2,3-CD)PYRENE	0.052	U	
NAPHTHALENE	0.065	U	
PHENANTHRENE	0.052	U	
PYRENE	0.06	U	

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW02D-20110504			JAX-45-B200-MW02S-20110504		
SDG: JAX01	LAB_ID	SE2433-2			SE2433-1			SE2433-4			SE2433-3		
FRACTION: PCB	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		0.15	U		0.16	U		0.15	U		0.14	U	
AROCLOR-1221		0.2	U		0.22	U		0.21	U		0.19	U	
AROCLOR-1232		0.091	U		0.096	U		0.092	U		0.086	U	
AROCLOR-1242		0.18	U		0.19	U		0.18	U		0.17	U	
AROCLOR-1248		0.2	U		0.22	U		0.21	U		0.19	U	
AROCLOR-1254		0.084	U		0.088	U		0.084	U		0.079	U	
AROCLOR-1260		0.17	U		0.18	U		0.18	U		0.16	U	

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW02D-20110504			JAX-45-B200-MW02S-20110504		
SDG: JAX01	LAB_ID	SE2433-2			SE2433-1DL			SE2433-4			SE2433-3		
FRACTION: PET	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C08-C40)		140	U		12000			310	J	P	140	U	

PROJ_NO: 01511	NSAMPLE	JAX-45-B200-MW01D-20110504			JAX-45-B200-MW01S-20110504			JAX-45-B200-MW02D-20110504			JAX-45-B200-MW02S-20110504		
SDG: JAX01	LAB_ID	SE2433-002			SE2433-001			SE2433-004			SE2433-003		
FRACTION: M	SAMP_DATE	5/4/2011			5/4/2011			5/4/2011			5/4/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		218	J	P	251	J	P	58.7	J	P	2420		
ANTIMONY		1.28	U		1.28	U		1.3	U	A	1.28	U	
ARSENIC		1.43	U		1.7	J	P	8.2			1.43	U	
BARIUM		34.2			20.3			32.8			37.6		
BERYLLIUM		0.1	U		0.1	U		0.1	U		0.1	U	
CADMIUM		0.05	U		0.05	U		0.05	U		0.05	U	
CALCIUM		8760			96600			8420			32900		
CHROMIUM		0.88	J	P	2.6	J	P	0.36	U		6	J	P
COBALT		3.7	J	P	0.39	J	P	8.7	J	P	0.74	J	P
COPPER		0.63	U		1.5	J	P	0.63	U		3.5	J	P
IRON		1210			4860			19800			7720		
LEAD		1.07	U		1.1	J	P	1.07	U		2.4	J	P
MAGNESIUM		2050			5850			2310			11500		
MANGANESE		160			231			179			104		
MERCURY		0.01	U		0.01	U		0.01	U		0.03	J	P
NICKEL		1.6	J	P	0.64	J	P	0.71	J	P	2.5	J	P
POTASSIUM		1190			5490			1410			2710		
SELENIUM		2.36	U		2.36	U		2.36	U		3	J	P
SILVER		0.27	U		0.27	U		0.43	J	P	0.27	U	
SODIUM		9220			8520			8160			3770		
THALLIUM		1.07	U		1.07	U		1.07	U		1.07	U	
VANADIUM		0.29	J	P	1.1	J	P	0.23	U		5.2	J	P
ZINC		17.5	J	P	11.7	J	P	11.6	J	P	5.7	J	P

Appendix B

Results as Reported by the Laboratory

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ANALYTICAL SERVICES

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-2
Client ID: B200-MW01D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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P.O. Box 540, Scarborough, ME 04070
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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-2
Client ID: B200-MW01D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		87.0	%					
Toluene-d8		88.5	%					
1,2-Dichloroethane-d4		94.7	%					
Dibromofluoromethane		84.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		13.	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	I	0.34	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		2.3	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene		24.	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene		16.	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene		10.	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene		3.5	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene		1.7	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene		8.6	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane		1.6	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane		3.4	ug/L	1	1	1.0	0.30	0.50
Total Xylene		44.	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		87.0	%					
Toluene-d8		87.3	%					
1,2-Dichloroethane-d4		97.7	%					
Dibromofluoromethane		87.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	I	0.70	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	L	860	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		56.	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		2.2	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene		1.1	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		20.	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	L	370	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	I	0.36	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		84.6	%					
Toluene-d8		83.4	%					
1,2-Dichloroethane-d4		95.3	%					
Dibromofluoromethane		86.4	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4DL
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 10-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91391

Analysis Date: 10-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	2.4	ug/L	10	2	20.	2.4	10.
Chloromethane	U	3.6	ug/L	10	2	20.	3.6	10.
Vinyl Chloride	U	2.5	ug/L	10	2	20.	2.5	10.
Bromomethane	U	4.9	ug/L	10	2	20.	4.9	10.
Chloroethane	U	5.5	ug/L	10	2	20.	5.5	10.
Trichlorofluoromethane	U	2.4	ug/L	10	2	20.	2.4	10.
1,1-Dichloroethene		750	ug/L	10	1	10.	3.5	5.0
Carbon Disulfide	U	2.5	ug/L	10	1	10.	2.5	5.0
Methylene Chloride	U	11.	ug/L	10	5	50.	11.	25.
Acetone	U	22.	ug/L	10	5	50.	22.	25.
trans-1,2-Dichloroethene	U	2.5	ug/L	10	1	10.	2.5	5.0
Methyl tert-butyl Ether	U	3.6	ug/L	10	1	10.	3.6	5.0
1,1-Dichloroethane		51.	ug/L	10	1	10.	2.1	5.0
cis-1,2-Dichloroethene	I	3.4	ug/L	10	1	10.	2.1	5.0
Chloroform	U	3.2	ug/L	10	1	10.	3.2	5.0
Carbon Tetrachloride	U	2.2	ug/L	10	1	10.	2.2	5.0
1,1,1-Trichloroethane	U	2.0	ug/L	10	1	10.	2.0	5.0
2-Butanone	U	13.	ug/L	10	5	50.	13.	25.
Benzene	U	2.6	ug/L	10	1	10.	2.6	5.0
1,2-Dichloroethane		18.	ug/L	10	1	10.	2.0	5.0
Trichloroethene		390	ug/L	10	1	10.	2.8	5.0
1,2-Dichloropropane	U	2.5	ug/L	10	1	10.	2.5	5.0
Bromodichloromethane	U	3.3	ug/L	10	1	10.	3.3	5.0
cis-1,3-Dichloropropene	U	1.9	ug/L	10	1	10.	1.9	5.0
Toluene	U	2.7	ug/L	10	1	10.	2.7	5.0
4-Methyl-2-Pentanone	U	13.	ug/L	10	5	50.	13.	25.
Tetrachloroethene	U	4.0	ug/L	10	1	10.	4.0	5.0
trans-1,3-Dichloropropene	U	2.0	ug/L	10	1	10.	2.0	5.0
1,1,2-Trichloroethane	U	3.3	ug/L	10	1	10.	3.3	5.0
Dibromochloromethane	U	3.0	ug/L	10	1	10.	3.0	5.0
1,2-Dibromoethane	U	2.2	ug/L	10	1	10.	2.2	5.0
2-Hexanone	U	17.	ug/L	10	5	50.	17.	25.
Chlorobenzene	U	2.2	ug/L	10	1	10.	2.2	5.0
Ethylbenzene	U	2.1	ug/L	10	1	10.	2.1	5.0
Styrene	U	2.3	ug/L	10	1	10.	2.3	5.0

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4DL
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 10-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91391

Analysis Date: 10-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	2.3	ug/L	10	1	10.	2.3	5.0
Isopropylbenzene	U	2.3	ug/L	10	1	10.	2.3	5.0
1,1,2,2-Tetrachloroethane	U	3.8	ug/L	10	1	10.	3.8	5.0
1,3-Dichlorobenzene	U	2.6	ug/L	10	1	10.	2.6	5.0
1,4-Dichlorobenzene	U	2.4	ug/L	10	1	10.	2.4	5.0
1,2-Dichlorobenzene	U	1.5	ug/L	10	1	10.	1.5	5.0
1,2-Dibromo-3-Chloropropane	U	5.0	ug/L	10	1	10.	5.0	7.5
1,2,4-Trichlorobenzene	U	3.7	ug/L	10	1	10.	3.7	5.0
Freon-113	U	3.1	ug/L	10	1	10.	3.1	5.0
Cyclohexane	U	3.1	ug/L	10	1	10.	3.1	5.0
Methyl acetate	U	5.3	ug/L	10	1	10.	5.3	7.5
Methylcyclohexane	U	3.0	ug/L	10	1	10.	3.0	5.0
Total Xylene	U	2.5	ug/L	10	3	30.	2.5	15.
P-Bromofluorobenzene		109.	%					
Toluene-d8		106.	%					
1,2-Dichloroethane-d4		92.4	%					
Dibromofluoromethane		102.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-3
Client ID: B200-MW02S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	I	0.38	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	I	0.31	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-3
Client ID: B200-MW02S-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 07-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 07-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		85.9	%					
Toluene-d8		85.0	%					
1,2-Dichloroethane-d4		85.5	%					
Dibromofluoromethane		84.5	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-5
Client ID: TRIP BLANK
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 01-MAY-11
Received Date: 05-MAY-11
Extract Date: 06-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 06-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-5
Client ID: TRIP BLANK
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 01-MAY-11
Received Date: 05-MAY-11
Extract Date: 06-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 06-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		78.6	%					
Toluene-d8		82.5	%					
1,2-Dichloroethane-d4		80.1	%					
Dibromofluoromethane		80.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-2
Client ID: B200-MW01D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	1.8	ug/L	1	10	10.	1.8	7.6
Bis(2-Chloroethyl) Ether	U	2.0	ug/L	1	10	10.	2.0	7.6
2-Chlorophenol	U	3.2	ug/L	1	10	10.	3.2	7.6
2,2'-Oxybis(1-Chloropropane)	U	2.1	ug/L	1	10	10.	2.1	7.6
2-Methylphenol	U	3.8	ug/L	1	10	10.	3.8	7.6
Hexachloroethane	U	2.3	ug/L	1	10	10.	2.3	7.6
N-Nitroso-Di-N-Propylamine	U	2.0	ug/L	1	10	10.	2.0	7.6
3&4-Methylphenol	U	5.6	ug/L	1	10	10.	5.6	7.6
Nitrobenzene	U	3.1	ug/L	1	10	10.	3.1	7.6
Isophorone	U	1.7	ug/L	1	10	10.	1.7	7.6
2-Nitrophenol	U	2.7	ug/L	1	10	10.	2.7	7.6
2,4-Dimethylphenol	U	4.4	ug/L	1	10	10.	4.4	7.6
Bis(2-Chloroethoxy) Methane	U	2.1	ug/L	1	10	10.	2.1	7.6
2,4-Dichlorophenol	U	3.0	ug/L	1	10	10.	3.0	7.6
4-Chloroaniline	U	1.9	ug/L	1	10	10.	1.9	7.6
Hexachlorobutadiene	U	1.8	ug/L	1	10	10.	1.8	7.6
4-Chloro-3-Methylphenol	U	3.6	ug/L	1	10	10.	3.6	7.6
2,4,6-Trichlorophenol	U	2.7	ug/L	1	10	10.	2.7	7.6
2,4,5-Trichlorophenol	U	3.6	ug/L	1	25	25.	3.6	19.
2-Chloronaphthalene	U	2.9	ug/L	1	10	10.	2.9	7.6
2-Nitroaniline	U	1.8	ug/L	1	25	25.	1.8	19.
Dimethyl Phthalate	U	2.0	ug/L	1	10	10.	2.0	7.6
2,6-Dinitrotoluene	U	2.0	ug/L	1	10	10.	2.0	7.6
3-Nitroaniline	U	1.5	ug/L	1	25	25.	1.5	19.
2,4-Dinitrophenol	U	1.0	ug/L	1	25	25.	1.0	19.
Dibenzofuran	U	1.6	ug/L	1	10	10.	1.6	7.6
4-Nitrophenol	U	1.8	ug/L	1	25	25.	1.8	19.
2,4-Dinitrotoluene	U	2.2	ug/L	1	10	10.	2.2	7.6
Diethylphthalate	U	2.0	ug/L	1	10	10.	2.0	7.6
4-Chlorophenyl-Phenylether	U	2.2	ug/L	1	10	10.	2.2	7.6
4-Nitroaniline	U	1.6	ug/L	1	25	25.	1.6	19.
4,6-Dinitro-2-Methylphenol	U	2.0	ug/L	1	25	25.	2.0	19.
N-Nitrosodiphenylamine	U	3.7	ug/L	1	10	10.	3.7	7.6
4-Bromophenyl-Phenylether	U	1.9	ug/L	1	10	10.	1.9	7.6
Hexachlorobenzene	U	2.1	ug/L	1	10	10.	2.1	7.6

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-2
Client ID: B200-MW01D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	2.3	ug/L	1	25	25.	2.3	19.
Carbazole	U	2.1	ug/L	1	10	10.	2.1	7.6
Di-N-Butylphthalate	U	2.5	ug/L	1	10	10.	2.5	7.6
Butylbenzylphthalate	U	1.9	ug/L	1	10	10.	1.9	7.6
3,3'-Dichlorobenzidine	U	1.1	ug/L	1	10	10.	1.1	19.
Bis(2-Ethylhexyl) Phthalate	U	1.7	ug/L	1	10	10.	1.7	7.6
Di-N-Octylphthalate	U	1.8	ug/L	1	10	10.	1.8	7.6
1,1'-Biphenyl	U	2.7	ug/L	1	10	10.	2.7	7.6
Caprolactam	U	0.40	ug/L	1	10	10.	0.40	7.6
Benzaldehyde	U	1.0	ug/L	1	10	10.	1.0	7.6
Acetophenone	U	3.9	ug/L	1	10	10.	3.9	7.6
Atrazine	U	3.3	ug/L	1	10	10.	3.3	7.6
Hexachlorocyclopentadiene	U	1.2	ug/L	1	10	10.	1.2	7.6
2-Fluorophenol		32.1	%					
Phenol-D6		21.9	%					
Nitrobenzene-d5		56.8	%					
2-Fluorobiphenyl		60.9	%					
2,4,6-Tribromophenol		68.7	%					
Terphenyl-d14		68.4	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	1.8	ug/L	1	10	10.	1.8	7.7
Bis(2-Chloroethyl) Ether	U	2.1	ug/L	1	10	10.	2.1	7.7
2-Chlorophenol	U	3.3	ug/L	1	10	10.	3.3	7.7
2,2'-Oxybis(1-Chloropropane)	U	2.2	ug/L	1	10	10.	2.2	7.7
2-Methylphenol	U	3.9	ug/L	1	10	10.	3.9	7.7
Hexachloroethane	U	2.4	ug/L	1	10	10.	2.4	7.7
N-Nitroso-Di-N-Propylamine	U	2.1	ug/L	1	10	10.	2.1	7.7
3&4-Methylphenol	U	5.8	ug/L	1	10	10.	5.8	7.7
Nitrobenzene	U	3.2	ug/L	1	10	10.	3.2	7.7
Isophorone	U	1.8	ug/L	1	10	10.	1.8	7.7
2-Nitrophenol	U	2.8	ug/L	1	10	10.	2.8	7.7
2,4-Dimethylphenol		12.	ug/L	1	10	10.	4.5	7.7
Bis(2-Chloroethoxy) Methane	U	2.2	ug/L	1	10	10.	2.2	7.7
2,4-Dichlorophenol	U	3.1	ug/L	1	10	10.	3.1	7.7
4-Chloroaniline	U	2.0	ug/L	1	10	10.	2.0	7.7
Hexachlorobutadiene	U	1.8	ug/L	1	10	10.	1.8	7.7
4-Chloro-3-Methylphenol	U	3.7	ug/L	1	10	10.	3.7	7.7
2,4,6-Trichlorophenol	U	2.8	ug/L	1	10	10.	2.8	7.7
2,4,5-Trichlorophenol	U	3.7	ug/L	1	25	26.	3.7	19.
2-Chloronaphthalene	U	3.0	ug/L	1	10	10.	3.0	7.7
2-Nitroaniline	U	1.8	ug/L	1	25	26.	1.8	19.
Dimethyl Phthalate	U	2.1	ug/L	1	10	10.	2.1	7.7
2,6-Dinitrotoluene	U	2.1	ug/L	1	10	10.	2.1	7.7
3-Nitroaniline	U	1.5	ug/L	1	25	26.	1.5	19.
2,4-Dinitrophenol	U	1.0	ug/L	1	25	26.	1.0	19.
Dibenzofuran	U	1.6	ug/L	1	10	10.	1.6	7.7
4-Nitrophenol	U	1.8	ug/L	1	25	26.	1.8	19.
2,4-Dinitrotoluene	U	2.3	ug/L	1	10	10.	2.3	7.7
Diethylphthalate	U	2.1	ug/L	1	10	10.	2.1	7.7
4-Chlorophenyl-Phenylether	U	2.3	ug/L	1	10	10.	2.3	7.7
4-Nitroaniline	U	1.6	ug/L	1	25	26.	1.6	19.
4,6-Dinitro-2-Methylphenol	U	2.1	ug/L	1	25	26.	2.1	19.
N-Nitrosodiphenylamine	U	3.8	ug/L	1	10	10.	3.8	7.7
4-Bromophenyl-Phenylether	U	2.0	ug/L	1	10	10.	2.0	7.7
Hexachlorobenzene	U	2.2	ug/L	1	10	10.	2.2	7.7

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	2.4	ug/L	1	25	26.	2.4	19.
Carbazole	U	2.2	ug/L	1	10	10.	2.2	7.7
Di-N-Butylphthalate	I	4.1	ug/L	1	10	10.	2.6	7.7
Butylbenzylphthalate	U	2.0	ug/L	1	10	10.	2.0	7.7
3,3'-Dichlorobenzidine	U	1.1	ug/L	1	10	10.	1.1	19.
Bis(2-Ethylhexyl) Phthalate	U	1.8	ug/L	1	10	10.	1.8	7.7
Di-N-Octylphthalate	U	1.8	ug/L	1	10	10.	1.8	7.7
1,1'-Biphenyl	I	3.4	ug/L	1	10	10.	2.8	7.7
Caprolactam	U	0.41	ug/L	1	10	10.	0.41	7.7
Benzaldehyde	U	1.0	ug/L	1	10	10.	1.0	7.7
Acetophenone	U	4.0	ug/L	1	10	10.	4.0	7.7
Atrazine	U	3.4	ug/L	1	10	10.	3.4	7.7
Hexachlorocyclopentadiene	U	1.2	ug/L	1	10	10.	1.2	7.7
2-Fluorophenol		37.8	%					
Phenol-D6		29.4	%					
Nitrobenzene-d5		53.4	%					
2-Fluorobiphenyl		48.2	%					
2,4,6-Tribromophenol		72.0	%					
Terphenyl-d14		80.1	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	1.7	ug/L	1	10	9.6	1.7	7.2
Bis(2-Chloroethyl) Ether	U	1.9	ug/L	1	10	9.6	1.9	7.2
2-Chlorophenol	U	3.1	ug/L	1	10	9.6	3.1	7.2
2,2'-Oxybis(1-Chloropropane)	U	2.0	ug/L	1	10	9.6	2.0	7.2
2-Methylphenol	U	3.6	ug/L	1	10	9.6	3.6	7.2
Hexachloroethane	U	2.2	ug/L	1	10	9.6	2.2	7.2
N-Nitroso-Di-N-Propylamine	U	1.9	ug/L	1	10	9.6	1.9	7.2
3&4-Methylphenol	U	5.4	ug/L	1	10	9.6	5.4	7.2
Nitrobenzene	U	3.0	ug/L	1	10	9.6	3.0	7.2
Isophorone	U	1.6	ug/L	1	10	9.6	1.6	7.2
2-Nitrophenol	U	2.6	ug/L	1	10	9.6	2.6	7.2
2,4-Dimethylphenol	U	4.2	ug/L	1	10	9.6	4.2	7.2
Bis(2-Chloroethoxy) Methane	U	2.0	ug/L	1	10	9.6	2.0	7.2
2,4-Dichlorophenol	U	2.9	ug/L	1	10	9.6	2.9	7.2
4-Chloroaniline	U	1.8	ug/L	1	10	9.6	1.8	7.2
Hexachlorobutadiene	U	1.7	ug/L	1	10	9.6	1.7	7.2
4-Chloro-3-Methylphenol	U	3.5	ug/L	1	10	9.6	3.5	7.2
2,4,6-Trichlorophenol	U	2.6	ug/L	1	10	9.6	2.6	7.2
2,4,5-Trichlorophenol	U	3.5	ug/L	1	25	24.	3.5	18.
2-Chloronaphthalene	U	2.8	ug/L	1	10	9.6	2.8	7.2
2-Nitroaniline	U	1.7	ug/L	1	25	24.	1.7	18.
Dimethyl Phthalate	U	1.9	ug/L	1	10	9.6	1.9	7.2
2,6-Dinitrotoluene	U	1.9	ug/L	1	10	9.6	1.9	7.2
3-Nitroaniline	U	1.4	ug/L	1	25	24.	1.4	18.
2,4-Dinitrophenol	U	0.96	ug/L	1	25	24.	0.96	18.
Dibenzofuran	U	1.5	ug/L	1	10	9.6	1.5	7.2
4-Nitrophenol	U	1.7	ug/L	1	25	24.	1.7	18.
2,4-Dinitrotoluene	U	2.1	ug/L	1	10	9.6	2.1	7.2
Diethylphthalate	U	1.9	ug/L	1	10	9.6	1.9	7.2
4-Chlorophenyl-Phenylether	U	2.1	ug/L	1	10	9.6	2.1	7.2
4-Nitroaniline	U	1.5	ug/L	1	25	24.	1.5	18.
4,6-Dinitro-2-Methylphenol	U	1.9	ug/L	1	25	24.	1.9	18.
N-Nitrosodiphenylamine	U	3.6	ug/L	1	10	9.6	3.6	7.2
4-Bromophenyl-Phenylether	U	1.8	ug/L	1	10	9.6	1.8	7.2
Hexachlorobenzene	U	2.0	ug/L	1	10	9.6	2.0	7.2

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	2.2	ug/L	1	25	24.	2.2	18.
Carbazole	U	2.0	ug/L	1	10	9.6	2.0	7.2
Di-N-Butylphthalate	U	2.4	ug/L	1	10	9.6	2.4	7.2
Butylbenzylphthalate	U	1.8	ug/L	1	10	9.6	1.8	7.2
3,3'-Dichlorobenzidine	U	1.0	ug/L	1	10	9.6	1.0	18.
Bis(2-Ethylhexyl) Phthalate	U	1.6	ug/L	1	10	9.6	1.6	7.2
Di-N-Octylphthalate	U	1.7	ug/L	1	10	9.6	1.7	7.2
1,1'-Biphenyl	U	2.6	ug/L	1	10	9.6	2.6	7.2
Caprolactam	U	0.38	ug/L	1	10	9.6	0.38	7.2
Benzaldehyde	U	0.96	ug/L	1	10	9.6	0.96	7.2
Acetophenone	U	3.8	ug/L	1	10	9.6	3.8	7.2
Atrazine	U	3.2	ug/L	1	10	9.6	3.2	7.2
Hexachlorocyclopentadiene	U	1.2	ug/L	1	10	9.6	1.2	7.2
2-Fluorophenol		32.3	%					
Phenol-D6		23.2	%					
Nitrobenzene-d5		59.3	%					
2-Fluorobiphenyl		64.8	%					
2,4,6-Tribromophenol		80.8	%					
Terphenyl-d14		75.2	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-3
Client ID: B200-MW02S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	1.8	ug/L	1	10	10.	1.8	7.6
Bis(2-Chloroethyl) Ether	U	2.0	ug/L	1	10	10.	2.0	7.6
2-Chlorophenol	U	3.2	ug/L	1	10	10.	3.2	7.6
2,2'-Oxybis(1-Chloropropane)	U	2.1	ug/L	1	10	10.	2.1	7.6
2-Methylphenol	U	3.8	ug/L	1	10	10.	3.8	7.6
Hexachloroethane	U	2.3	ug/L	1	10	10.	2.3	7.6
N-Nitroso-Di-N-Propylamine	U	2.0	ug/L	1	10	10.	2.0	7.6
3&4-Methylphenol	U	5.6	ug/L	1	10	10.	5.6	7.6
Nitrobenzene	U	3.1	ug/L	1	10	10.	3.1	7.6
Isophorone	U	1.7	ug/L	1	10	10.	1.7	7.6
2-Nitrophenol	U	2.7	ug/L	1	10	10.	2.7	7.6
2,4-Dimethylphenol	U	4.4	ug/L	1	10	10.	4.4	7.6
Bis(2-Chloroethoxy) Methane	U	2.1	ug/L	1	10	10.	2.1	7.6
2,4-Dichlorophenol	U	3.0	ug/L	1	10	10.	3.0	7.6
4-Chloroaniline	U	1.9	ug/L	1	10	10.	1.9	7.6
Hexachlorobutadiene	U	1.8	ug/L	1	10	10.	1.8	7.6
4-Chloro-3-Methylphenol	U	3.6	ug/L	1	10	10.	3.6	7.6
2,4,6-Trichlorophenol	U	2.7	ug/L	1	10	10.	2.7	7.6
2,4,5-Trichlorophenol	U	3.6	ug/L	1	25	25.	3.6	19.
2-Chloronaphthalene	U	2.9	ug/L	1	10	10.	2.9	7.6
2-Nitroaniline	U	1.8	ug/L	1	25	25.	1.8	19.
Dimethyl Phthalate	U	2.0	ug/L	1	10	10.	2.0	7.6
2,6-Dinitrotoluene	U	2.0	ug/L	1	10	10.	2.0	7.6
3-Nitroaniline	U	1.5	ug/L	1	25	25.	1.5	19.
2,4-Dinitrophenol	U	1.0	ug/L	1	25	25.	1.0	19.
Dibenzofuran	U	1.6	ug/L	1	10	10.	1.6	7.6
4-Nitrophenol	U	1.8	ug/L	1	25	25.	1.8	19.
2,4-Dinitrotoluene	U	2.2	ug/L	1	10	10.	2.2	7.6
Diethylphthalate	U	2.0	ug/L	1	10	10.	2.0	7.6
4-Chlorophenyl-Phenylether	U	2.2	ug/L	1	10	10.	2.2	7.6
4-Nitroaniline	U	1.6	ug/L	1	25	25.	1.6	19.
4,6-Dinitro-2-Methylphenol	U	2.0	ug/L	1	25	25.	2.0	19.
N-Nitrosodiphenylamine	U	3.7	ug/L	1	10	10.	3.7	7.6
4-Bromophenyl-Phenylether	U	1.9	ug/L	1	10	10.	1.9	7.6
Hexachlorobenzene	U	2.1	ug/L	1	10	10.	2.1	7.6

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-3
Client ID: B200-MW02S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	2.3	ug/L	1	25	25.	2.3	19.
Carbazole	U	2.1	ug/L	1	10	10.	2.1	7.6
Di-N-Butylphthalate	U	2.5	ug/L	1	10	10.	2.5	7.6
Butylbenzylphthalate	U	1.9	ug/L	1	10	10.	1.9	7.6
3,3'-Dichlorobenzidine	U	1.1	ug/L	1	10	10.	1.1	19.
Bis(2-Ethylhexyl) Phthalate	U	1.7	ug/L	1	10	10.	1.7	7.6
Di-N-Octylphthalate	U	1.8	ug/L	1	10	10.	1.8	7.6
1,1'-Biphenyl	U	2.7	ug/L	1	10	10.	2.7	7.6
Caprolactam	U	0.40	ug/L	1	10	10.	0.40	7.6
Benzaldehyde	U	1.0	ug/L	1	10	10.	1.0	7.6
Acetophenone	U	3.9	ug/L	1	10	10.	3.9	7.6
Atrazine	U	3.3	ug/L	1	10	10.	3.3	7.6
Hexachlorocyclopentadiene	U	1.2	ug/L	1	10	10.	1.2	7.6
2-Fluorophenol		32.3	%					
Phenol-D6		20.9	%					
Nitrobenzene-d5		50.4	%					
2-Fluorobiphenyl		51.1	%					
2,4,6-Tribromophenol		53.1	%					
Terphenyl-d14		41.2	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-2
Client ID: B200-MW01D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91135

Analysis Date: 10-MAY-11
Analyst: JCG
Analysis Method: SW846 M8270C
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	0.065	ug/L	1	.2	0.20	0.065	0.10
1-Methylnaphthalene	U	0.069	ug/L	1	.2	0.20	0.069	0.10
2-Methylnaphthalene	U	0.078	ug/L	1	.2	0.20	0.078	0.10
Acenaphthylene	U	0.054	ug/L	1	.2	0.20	0.054	0.10
Acenaphthene	U	0.065	ug/L	1	.2	0.20	0.065	0.10
Fluorene	U	0.062	ug/L	1	.2	0.20	0.062	0.10
Phenanthrene	U	0.052	ug/L	1	.2	0.20	0.052	0.10
Anthracene	U	0.044	ug/L	1	.2	0.20	0.044	0.10
Fluoranthene	U	0.074	ug/L	1	.2	0.20	0.074	0.10
Pyrene	U	0.060	ug/L	1	.2	0.20	0.060	0.10
Benzo (a) anthracene	U	0.046	ug/L	1	.2	0.20	0.046	0.10
Chrysene	U	0.036	ug/L	1	.2	0.20	0.036	0.10
Benzo (b) Fluoranthene	U	0.090	ug/L	1	.2	0.20	0.090	0.10
Benzo(k)fluoranthene	U	0.049	ug/L	1	.2	0.20	0.049	0.10
Benzo(a)pyrene	U	0.067	ug/L	1	.2	0.20	0.067	0.10
Indeno (1,2,3-cd) pyrene	U	0.052	ug/L	1	.2	0.20	0.052	0.10
Dibenzo (a,h) anthracene	U	0.071	ug/L	1	.2	0.20	0.071	0.10
Benzo(g,h,i)perylene	U	0.066	ug/L	1	.2	0.20	0.066	0.10
2-Methylnaphthalene-D10		59.4	%					
Fluorene-D10		58.1	%					
pyrene-d10		90.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91135

Analysis Date: 10-MAY-11
Analyst: JCG
Analysis Method: SW846 M8270C
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	L	21.	ug/L	1	.2	0.21	0.066	0.10
1-Methylnaphthalene	L	9.8	ug/L	1	.2	0.21	0.070	0.10
2-Methylnaphthalene	L	11.	ug/L	1	.2	0.21	0.079	0.10
Acenaphthylene	U	0.056	ug/L	1	.2	0.21	0.056	0.10
Acenaphthene	I	0.085	ug/L	1	.2	0.21	0.066	0.10
Fluorene	I	0.081	ug/L	1	.2	0.21	0.063	0.10
Phenanthrene	U	0.052	ug/L	1	.2	0.21	0.052	0.10
Anthracene	U	0.045	ug/L	1	.2	0.21	0.045	0.10
Fluoranthene	U	0.075	ug/L	1	.2	0.21	0.075	0.10
Pyrene	U	0.061	ug/L	1	.2	0.21	0.061	0.10
Benzo (a) anthracene	U	0.047	ug/L	1	.2	0.21	0.047	0.10
Chrysene	U	0.037	ug/L	1	.2	0.21	0.037	0.10
Benzo (b) Fluoranthene	U	0.092	ug/L	1	.2	0.21	0.092	0.10
Benzo(k)fluoranthene	U	0.050	ug/L	1	.2	0.21	0.050	0.10
Benzo(a)pyrene	U	0.068	ug/L	1	.2	0.21	0.068	0.10
Indeno (1,2,3-cd) pyrene	U	0.054	ug/L	1	.2	0.21	0.054	0.10
Dibenzo (a,h) anthracene	U	0.072	ug/L	1	.2	0.21	0.072	0.10
Benzo(g,h,i)perylene	U	0.067	ug/L	1	.2	0.21	0.067	0.10
2-Methylnaphthalene-D10	J	10.5	%					
Fluorene-D10	J	20.5	%					
pyrene-d10		70.6	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1DL2
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91135

Analysis Date: 11-MAY-11
Analyst: JCG
Analysis Method: SW846 M8270C
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene		52.	ug/L	10	.2	2.1	0.66	1.0
1-Methylnaphthalene		12.	ug/L	10	.2	2.1	0.70	1.0
2-Methylnaphthalene		9.3	ug/L	10	.2	2.1	0.79	1.0
Acenaphthylene	U	0.56	ug/L	10	.2	2.1	0.56	1.0
Acenaphthene	U	0.66	ug/L	10	.2	2.1	0.66	1.0
Fluorene	U	0.63	ug/L	10	.2	2.1	0.63	1.0
Phenanthrene	U	0.52	ug/L	10	.2	2.1	0.52	1.0
Anthracene	U	0.45	ug/L	10	.2	2.1	0.45	1.0
Fluoranthene	U	0.75	ug/L	10	.2	2.1	0.75	1.0
Pyrene	U	0.61	ug/L	10	.2	2.1	0.61	1.0
Benzo (a) anthracene	U	0.47	ug/L	10	.2	2.1	0.47	1.0
Chrysene	U	0.37	ug/L	10	.2	2.1	0.37	1.0
Benzo (b) Fluoranthene	U	0.92	ug/L	10	.2	2.1	0.92	1.0
Benzo(k)fluoranthene	U	0.50	ug/L	10	.2	2.1	0.50	1.0
Benzo(a)pyrene	U	0.68	ug/L	10	.2	2.1	0.68	1.0
Indeno (1,2,3-cd) pyrene	U	0.54	ug/L	10	.2	2.1	0.54	1.0
Dibenzo (a,h) anthracene	U	0.72	ug/L	10	.2	2.1	0.72	1.0
Benzo(g,h,i)perylene	U	0.67	ug/L	10	.2	2.1	0.67	1.0
2-Methylnaphthalene-D10	D	0	%					
Fluorene-D10	D	0	%					
pyrene-d10	D	0	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91135

Analysis Date: 10-MAY-11
Analyst: JCG
Analysis Method: SW846 M8270C
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	0.062	ug/L	1	.2	0.19	0.062	0.096
1-Methylnaphthalene	U	0.065	ug/L	1	.2	0.19	0.065	0.096
2-Methylnaphthalene	U	0.074	ug/L	1	.2	0.19	0.074	0.096
Acenaphthylene	U	0.052	ug/L	1	.2	0.19	0.052	0.096
Acenaphthene	U	0.062	ug/L	1	.2	0.19	0.062	0.096
Fluorene	U	0.059	ug/L	1	.2	0.19	0.059	0.096
Phenanthrene	U	0.049	ug/L	1	.2	0.19	0.049	0.096
Anthracene	U	0.042	ug/L	1	.2	0.19	0.042	0.096
Fluoranthene	U	0.070	ug/L	1	.2	0.19	0.070	0.096
Pyrene	U	0.057	ug/L	1	.2	0.19	0.057	0.096
Benzo (a) anthracene	I	0.14	ug/L	1	.2	0.19	0.044	0.096
Chrysene	U	0.035	ug/L	1	.2	0.19	0.035	0.096
Benzo (b) Fluoranthene	U	0.086	ug/L	1	.2	0.19	0.086	0.096
Benzo(k)fluoranthene	U	0.047	ug/L	1	.2	0.19	0.047	0.096
Benzo(a)pyrene	U	0.063	ug/L	1	.2	0.19	0.063	0.096
Indeno (1,2,3-cd) pyrene	U	0.050	ug/L	1	.2	0.19	0.050	0.096
Dibenzo (a,h) anthracene	U	0.067	ug/L	1	.2	0.19	0.067	0.096
Benzo(g,h,i)perylene	U	0.062	ug/L	1	.2	0.19	0.062	0.096
2-Methylnaphthalene-D10		44.5	%					
Fluorene-D10		53.6	%					
pyrene-d10		98.5	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-3
Client ID: B200-MW02S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91135

Analysis Date: 10-MAY-11
Analyst: JCG
Analysis Method: SW846 M8270C
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	0.065	ug/L	1	.2	0.20	0.065	0.10
1-Methylnaphthalene	U	0.069	ug/L	1	.2	0.20	0.069	0.10
2-Methylnaphthalene	U	0.078	ug/L	1	.2	0.20	0.078	0.10
Acenaphthylene	U	0.054	ug/L	1	.2	0.20	0.054	0.10
Acenaphthene	U	0.065	ug/L	1	.2	0.20	0.065	0.10
Fluorene	U	0.062	ug/L	1	.2	0.20	0.062	0.10
Phenanthrene	U	0.052	ug/L	1	.2	0.20	0.052	0.10
Anthracene	U	0.044	ug/L	1	.2	0.20	0.044	0.10
Fluoranthene	U	0.074	ug/L	1	.2	0.20	0.074	0.10
Pyrene	U	0.060	ug/L	1	.2	0.20	0.060	0.10
Benzo (a) anthracene	U	0.046	ug/L	1	.2	0.20	0.046	0.10
Chrysene	U	0.036	ug/L	1	.2	0.20	0.036	0.10
Benzo (b) Fluoranthene	U	0.090	ug/L	1	.2	0.20	0.090	0.10
Benzo(k)fluoranthene	U	0.049	ug/L	1	.2	0.20	0.049	0.10
Benzo(a)pyrene	I	0.16	ug/L	1	.2	0.20	0.067	0.10
Indeno (1,2,3-cd) pyrene	U	0.052	ug/L	1	.2	0.20	0.052	0.10
Dibenzo (a,h) anthracene	U	0.071	ug/L	1	.2	0.20	0.071	0.10
Benzo(g,h,i)perylene	U	0.066	ug/L	1	.2	0.20	0.066	0.10
2-Methylnaphthalene-D10		49.1	%					
Fluorene-D10		48.4	%					
pyrene-d10		69.5	%					

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-2
Client ID: B200-MW01D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91144

Analysis Date: 06-MAY-11
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.15	ug/L	1	.5	0.51	0.15	0.26
Aroclor-1221	U	0.20	ug/L	1	.5	0.51	0.20	0.26
Aroclor-1232	U	0.091	ug/L	1	.5	0.51	0.091	0.26
Aroclor-1242	U	0.18	ug/L	1	.5	0.51	0.18	0.26
Aroclor-1248	U	0.20	ug/L	1	.5	0.51	0.20	0.26
Aroclor-1254	U	0.084	ug/L	1	.5	0.51	0.084	0.26
Aroclor-1260	U	0.17	ug/L	1	.5	0.51	0.17	0.26
Tetrachloro-M-Xylene		89.8	%					
Decachlorobiphenyl		90.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91144

Analysis Date: 06-MAY-11
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.16	ug/L	1	.5	0.54	0.16	0.27
Aroclor-1221	U	0.22	ug/L	1	.5	0.54	0.22	0.27
Aroclor-1232	U	0.096	ug/L	1	.5	0.54	0.096	0.27
Aroclor-1242	U	0.19	ug/L	1	.5	0.54	0.19	0.27
Aroclor-1248	U	0.22	ug/L	1	.5	0.54	0.22	0.27
Aroclor-1254	U	0.088	ug/L	1	.5	0.54	0.088	0.27
Aroclor-1260	U	0.18	ug/L	1	.5	0.54	0.18	0.27
Tetrachloro-M-Xylene		72.3	%					
Decachlorobiphenyl		71.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91144

Analysis Date: 06-MAY-11
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.15	ug/L	1	.5	0.52	0.15	0.26
Aroclor-1221	U	0.21	ug/L	1	.5	0.52	0.21	0.26
Aroclor-1232	U	0.092	ug/L	1	.5	0.52	0.092	0.26
Aroclor-1242	U	0.18	ug/L	1	.5	0.52	0.18	0.26
Aroclor-1248	U	0.21	ug/L	1	.5	0.52	0.21	0.26
Aroclor-1254	U	0.084	ug/L	1	.5	0.52	0.084	0.26
Aroclor-1260	U	0.18	ug/L	1	.5	0.52	0.18	0.26
Tetrachloro-M-Xylene		82.4	%					
Decachlorobiphenyl		64.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-3
Client ID: B200-MW02S-20110504
Project: NAS Jacksonville, CTO JM19
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91144

Analysis Date: 06-MAY-11
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.14	ug/L	1	.5	0.48	0.14	0.24
Aroclor-1221	U	0.19	ug/L	1	.5	0.48	0.19	0.24
Aroclor-1232	U	0.086	ug/L	1	.5	0.48	0.086	0.24
Aroclor-1242	U	0.17	ug/L	1	.5	0.48	0.17	0.24
Aroclor-1248	U	0.19	ug/L	1	.5	0.48	0.19	0.24
Aroclor-1254	U	0.079	ug/L	1	.5	0.48	0.079	0.24
Aroclor-1260	U	0.16	ug/L	1	.5	0.48	0.16	0.24
Tetrachloro-M-Xylene	J	53.7	%					
Decachlorobiphenyl	J	15.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-2
Client ID: B200-MW01D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 06-MAY-11
Extracted By: WS
Extraction Method: SW846 3510
Lab Prep Batch: WG91197

Analysis Date: 06-MAY-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics	U	140	ug/L	1	500	500	140	250
o-Terphenyl		92.9	%					
n-Triacontane-D62		97.6	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-1DL
Client ID: B200-MW01S-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 06-MAY-11
Extracted By: WS
Extraction Method: SW846 3510
Lab Prep Batch: WG91197

Analysis Date: 07-MAY-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		12000	ug/L	2	500	950	280	480
o-Terphenyl		103.	%					
n-Triacontane-D62		112.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-4
Client ID: B200-MW02D-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 06-MAY-11
Extracted By: WS
Extraction Method: SW846 3510
Lab Prep Batch: WG91197

Analysis Date: 07-MAY-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics	I	310	ug/L	1	500	490	140	240
o-Terphenyl		102.	%					
n-Triacontane-D62		109.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE2433-3
Client ID: B200-MW02S-20110504
Project: NAS Jacksonville, CTO JM15
SDG: JAX01

Sample Date: 04-MAY-11
Received Date: 05-MAY-11
Extract Date: 06-MAY-11
Extracted By: WS
Extraction Method: SW846 3510
Lab Prep Batch: WG91197

Analysis Date: 06-MAY-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics	U	140	ug/L	1	500	480	140	240
o-Terphenyl	J	69.6	%					
n-Triacontane-D62		76.2	%					

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: B200-MW01D-20110504
Matrix: WATER
SDG Name: JAX01
Percent Solids: 0.00
Lab Sample ID: SE2433-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7429-90-5	ALUMINUM, TOTAL	218	I		P	1	300	14.80	100
7440-36-0	ANTIMONY, TOTAL	1.28	U		P	1	8.0	1.28	5.0
7440-38-2	ARSENIC, TOTAL	1.43	U		P	1	8.0	1.43	5.0
7440-39-3	BARIUM, TOTAL	34.2			P	1	5.0	0.23	3.0
7440-41-7	BERYLLIUM, TOTAL	0.10	U		P	1	5.0	0.10	0.50
7440-43-9	CADMIUM, TOTAL	0.05	U		P	1	10	0.05	3.0
7440-70-2	CALCIUM, TOTAL	8760			P	1	100	11.20	80
7440-47-3	CHROMIUM, TOTAL	0.88	I		P	1	15	0.36	4.0
7440-48-4	COBALT, TOTAL	3.7	I		P	1	30	0.24	4.0
7440-50-8	COPPER, TOTAL	0.63	U		P	1	25	0.63	10
7439-89-6	IRON, TOTAL	1210			P	1	100	5.42	80
7439-92-1	LEAD, TOTAL	1.07	U		P	1	5.0	1.07	4.0
7439-95-4	MAGNESIUM, TOTAL	2050			P	1	100	7.80	80
7439-96-5	MANGANESE, TOTAL	160			P	1	5.0	1.06	4.0
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.20	0.01	0.10
7440-02-0	NICKEL, TOTAL	1.6	I		P	1	40	0.28	4.0
7440-09-7	POTASSIUM, TOTAL	1190			P	1	1000	41.00	500
7782-49-2	SELENIUM, TOTAL	2.36	U		P	1	10	2.36	7.0
7440-22-4	SILVER, TOTAL	0.27	U		P	1	15	0.27	4.0
7440-23-5	SODIUM, TOTAL	9220			P	1	1000	23.72	500
7440-28-0	THALLIUM, TOTAL	1.07	U		P	1	15	1.07	5.0
7440-62-2	VANADIUM, TOTAL	0.29	I		P	1	25	0.23	4.0
7440-66-6	ZINC, TOTAL	17.5	I		P	1	25	0.72	10

Bottle ID: D

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: B200-MW01S-20110504
Matrix: WATER
SDG Name: JAX01
Percent Solids: 0.00
Lab Sample ID: SE2433-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7429-90-5	ALUMINUM, TOTAL	251	I		P	1	300	14.80	100
7440-36-0	ANTIMONY, TOTAL	1.28	U		P	1	8.0	1.28	5.0
7440-38-2	ARSENIC, TOTAL	1.7	I		P	1	8.0	1.43	5.0
7440-39-3	BARIUM, TOTAL	20.3			P	1	5.0	0.23	3.0
7440-41-7	BERYLLIUM, TOTAL	0.10	U		P	1	5.0	0.10	0.50
7440-43-9	CADMIUM, TOTAL	0.05	U		P	1	10	0.05	3.0
7440-70-2	CALCIUM, TOTAL	96600			P	1	100	11.20	80
7440-47-3	CHROMIUM, TOTAL	2.6	I		P	1	15	0.36	4.0
7440-48-4	COBALT, TOTAL	0.39	I		P	1	30	0.24	4.0
7440-50-8	COPPER, TOTAL	1.5	I		P	1	25	0.63	10
7439-89-6	IRON, TOTAL	4860			P	1	100	5.42	80
7439-92-1	LEAD, TOTAL	1.1	I		P	1	5.0	1.07	4.0
7439-95-4	MAGNESIUM, TOTAL	5850			P	1	100	7.80	80
7439-96-5	MANGANESE, TOTAL	231			P	1	5.0	1.06	4.0
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.20	0.01	0.10
7440-02-0	NICKEL, TOTAL	0.64	I		P	1	40	0.28	4.0
7440-09-7	POTASSIUM, TOTAL	5490			P	1	1000	41.00	500
7782-49-2	SELENIUM, TOTAL	2.36	U		P	1	10	2.36	7.0
7440-22-4	SILVER, TOTAL	0.27	U		P	1	15	0.27	4.0
7440-23-5	SODIUM, TOTAL	8520			P	1	1000	23.72	500
7440-28-0	THALLIUM, TOTAL	1.07	U		P	1	15	1.07	5.0
7440-62-2	VANADIUM, TOTAL	1.1	I		P	1	25	0.23	4.0
7440-66-6	ZINC, TOTAL	11.7	I		P	1	25	0.72	10

Bottle ID: D

Comments:

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INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services | **Client Field ID:** B200-MW02D-20110504

Matrix: WATER | **SDG Name:** JAX01

Percent Solids: 0.00 | **Lab Sample ID:** SE2433-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7429-90-5	ALUMINUM, TOTAL	58.7	I		P	1	300	14.80	100
7440-36-0	ANTIMONY, TOTAL	1.3	I		P	1	8.0	1.28	5.0
7440-38-2	ARSENIC, TOTAL	8.2			P	1	8.0	1.43	5.0
7440-39-3	BARIUM, TOTAL	32.8			P	1	5.0	0.23	3.0
7440-41-7	BERYLLIUM, TOTAL	0.10	U		P	1	5.0	0.10	0.50
7440-43-9	CADMIUM, TOTAL	0.05	U		P	1	10	0.05	3.0
7440-70-2	CALCIUM, TOTAL	8420			P	1	100	11.20	80
7440-47-3	CHROMIUM, TOTAL	0.36	U		P	1	15	0.36	4.0
7440-48-4	COBALT, TOTAL	8.7	I		P	1	30	0.24	4.0
7440-50-8	COPPER, TOTAL	0.63	U		P	1	25	0.63	10
7439-89-6	IRON, TOTAL	19800			P	1	100	5.42	80
7439-92-1	LEAD, TOTAL	1.07	U		P	1	5.0	1.07	4.0
7439-95-4	MAGNESIUM, TOTAL	2310			P	1	100	7.80	80
7439-96-5	MANGANESE, TOTAL	179			P	1	5.0	1.06	4.0
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.20	0.01	0.10
7440-02-0	NICKEL, TOTAL	0.71	I		P	1	40	0.28	4.0
7440-09-7	POTASSIUM, TOTAL	1410			P	1	1000	41.00	500
7782-49-2	SELENIUM, TOTAL	2.36	U		P	1	10	2.36	7.0
7440-22-4	SILVER, TOTAL	0.43	I		P	1	15	0.27	4.0
7440-23-5	SODIUM, TOTAL	8160			P	1	1000	23.72	500
7440-28-0	THALLIUM, TOTAL	1.07	U		P	1	15	1.07	5.0
7440-62-2	VANADIUM, TOTAL	0.23	U		P	1	25	0.23	4.0
7440-66-6	ZINC, TOTAL	11.6	I		P	1	25	0.72	10

Bottle ID: D

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: B200-MW02S-20110504
Matrix: WATER
SDG Name: JAX01
Percent Solids: 0.00
Lab Sample ID: SE2433-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	2420			P	1	300	14.80	100
7440-36-0	ANTIMONY, TOTAL	1.28	U		P	1	8.0	1.28	5.0
7440-38-2	ARSENIC, TOTAL	1.43	U		P	1	8.0	1.43	5.0
7440-39-3	BARIUM, TOTAL	37.6			P	1	5.0	0.23	3.0
7440-41-7	BERYLLIUM, TOTAL	0.10	U		P	1	5.0	0.10	0.50
7440-43-9	CADMIUM, TOTAL	0.05	U		P	1	10	0.05	3.0
7440-70-2	CALCIUM, TOTAL	32900			P	1	100	11.20	80
7440-47-3	CHROMIUM, TOTAL	6.0	I		P	1	15	0.36	4.0
7440-48-4	COBALT, TOTAL	0.74	I		P	1	30	0.24	4.0
7440-50-8	COPPER, TOTAL	3.5	I		P	1	25	0.63	10
7439-89-6	IRON, TOTAL	7720			P	1	100	5.42	80
7439-92-1	LEAD, TOTAL	2.4	I		P	1	5.0	1.07	4.0
7439-95-4	MAGNESIUM, TOTAL	11500			P	1	100	7.80	80
7439-96-5	MANGANESE, TOTAL	104			P	1	5.0	1.06	4.0
7439-97-6	MERCURY, TOTAL	0.03	I		CV	1	0.20	0.01	0.10
7440-02-0	NICKEL, TOTAL	2.5	I		P	1	40	0.28	4.0
7440-09-7	POTASSIUM, TOTAL	2710			P	1	1000	41.00	500
7782-49-2	SELENIUM, TOTAL	3.0	I		P	1	10	2.36	7.0
7440-22-4	SILVER, TOTAL	0.27	U		P	1	15	0.27	4.0
7440-23-5	SODIUM, TOTAL	3770			P	1	1000	23.72	500
7440-28-0	THALLIUM, TOTAL	1.07	U		P	1	15	1.07	5.0
7440-62-2	VANADIUM, TOTAL	5.2	I		P	1	25	0.23	4.0
7440-66-6	ZINC, TOTAL	5.7	I		P	1	25	0.72	10

Bottle ID: D

Comments:

Appendix C

Support Documentation

HOLDTIME

SDG JAX01

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	UG/L	JAX-45-B200-MW01S-201	SE2433-001	NM	05/04/2011	05/06/2011	05/09/2011	2	3	5
HG	UG/L	JAX-45-B200-MW02D-201	SE2433-004	NM	05/04/2011	05/06/2011	05/09/2011	2	3	5
HG	UG/L	JAX-45-B200-MW02S-201	SE2433-003	NM	05/04/2011	05/06/2011	05/09/2011	2	3	5
HG	UG/L	JAX-45-B200-MW01D-201	SE2433-002	NM	05/04/2011	05/06/2011	05/09/2011	2	3	5
M	UG/L	JAX-45-B200-MW01S-201	SE2433-001	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
M	UG/L	JAX-45-B200-MW02S-201	SE2433-003	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
M	UG/L	JAX-45-B200-MW02S-201	SE2433-003	NM	05/04/2011	05/05/2011	05/09/2011	1	4	5
M	UG/L	JAX-45-B200-MW02D-201	SE2433-004	NM	05/04/2011	05/05/2011	05/09/2011	1	4	5
M	UG/L	JAX-45-B200-MW01S-201	SE2433-001	NM	05/04/2011	05/05/2011	05/09/2011	1	4	5
M	UG/L	JAX-45-B200-MW01D-201	SE2433-002	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
M	UG/L	JAX-45-B200-MW01D-201	SE2433-002	NM	05/04/2011	05/05/2011	05/09/2011	1	4	5
M	UG/L	JAX-45-B200-MW02D-201	SE2433-004	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
OS	%	JAX-45-B200-MW01S-201	SE2433-1	SUR	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	%	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	%	JAX-45-B200-MW02S-201	SE2433-3	SUR	05/04/2011	05/05/2011	05/11/2011	1	6	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	%	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	%	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	%	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	%	JAX-45-B200-MW01D-201	SE2433-2	SUR	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	%	JAX-45-B200-MW02D-201	SE2433-4	SUR	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	UG/L	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	UG/L	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	UG/L	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OS	UG/L	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
OV	%	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	%	JAX-45-B200-MW02D-201	SE2433-4	SUR	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	%	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	%	JAX-45-B200-MW01S-201	SE2433-1	SUR	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	%	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	%	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	%	TRIP BLANK	SE2433-5	NM	05/01/2011	05/06/2011	05/06/2011	5	0	5
OV	%	JJAX-45-B200-MW01S-20	SE2433-1	SUR	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	%	JAX-45-B200-MW01D-201	SE2433-2	SUR	05/04/2011	05/07/2011	05/07/2011	3	0	3

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	TRIP BLANK	SE2433-5	SUR	05/01/2011	05/06/2011	05/06/2011	5	0	5
OV	%	JAX-45-B200-MW02S-201	SE2433-3	SUR	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	UG/L	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	UG/L	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	UG/L	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	UG/L	JAX-45-B200-MW02D-201	SE2433-4DL	NM	05/04/2011	05/10/2011	05/10/2011	6	0	6
OV	UG/L	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/07/2011	05/07/2011	3	0	3
OV	UG/L	TRIP BLANK	SE2433-5	NM	05/01/2011	05/06/2011	05/06/2011	5	0	5
SIM	%	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
SIM	%	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
SIM	%	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
SIM	%	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
SIM	UG/L	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
SIM	UG/L	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
SIM	UG/L	JAX-45-B200-MW01S-201	SE2433-1DL2	NM	05/04/2011	05/05/2011	05/11/2011	1	6	7
SIM	UG/L	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
SIM	UG/L	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/05/2011	05/10/2011	1	5	6
PCB	%	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	%	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2
PCB	%	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2
PCB	%	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2
PCB	UG/L	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2
PCB	UG/L	JAX-45-B200-MW01S-201	SE2433-1	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2
PCB	UG/L	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2
PCB	UG/L	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/05/2011	05/06/2011	1	1	2
TPH	%	JAX-45-B200-MW01S-201	SE2433-1DL	NM	05/04/2011	05/06/2011	05/07/2011	2	1	3
TPH	%	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/06/2011	05/07/2011	2	1	3
TPH	%	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/06/2011	05/06/2011	2	0	2
TPH	%	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/06/2011	05/06/2011	2	0	2
TPH	UG/L	JAX-45-B200-MW02S-201	SE2433-3	NM	05/04/2011	05/06/2011	05/06/2011	2	0	2
TPH	UG/L	JAX-45-B200-MW01D-201	SE2433-2	NM	05/04/2011	05/06/2011	05/06/2011	2	0	2
TPH	UG/L	JAX-45-B200-MW01S-201	SE2433-1DL	NM	05/04/2011	05/06/2011	05/07/2011	2	1	3
TPH	UG/L	JAX-45-B200-MW02D-201	SE2433-4	NM	05/04/2011	05/06/2011	05/07/2011	2	1	3

SE2433

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER No. 2184 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	904-636-6125	KATAHDIN ANALYTICAL
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: ZACH SCRIBNER	PHONE NUMBER: 904-636-6125	ADDRESS: 600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE: SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒ ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)									PRESERVATIVE USED								COMMENTS
									P	G	G	G	G					HNO3				HCl	HCl			
									TYPE OF ANALYSIS	TAL METALS	6 VOA (SCAN + SIM)	PCB's	TEPH - FL PRO	VOC - 8260B												
5/1	0845	NASJAX-45-B200-MW01S-20110504				GW	G	10		1	2	2	2	3												Cool to 4°C
	1000	NASJAX-45-B200-MW01D-20110504						10		1	2	2	2	3												
	1240	NASJAX-45-B200-MW02S-20110504						10		1	2	2	2	3												
	1225	NASJAX-45-B200-MW02D-20110504						10		1	2	2	2	3												
~~0800~~	5/4					QC		2																		TRIP BLANK
1300	5/1	VOA TRIP BLANK				QC		2																		TRIP BLANK

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	5/4/11	1530	1. RECEIVED BY	5/5/11	1000
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TINUS-001

Katahdin Analytical Services, Inc. **Sample Receipt Condition Report**

Client: Tetra Tech	KAS PM: KAP	Sampled By: Client
Project:	KIMS Entry By: GN	Delivered By: Fed-Ex
KAS Work Order#: SE2433	KIMS Review By:	Received By: GN
SDG #:	Cooler: 1 of 3	Date/Time Rec.: 5-XS-11/10:00

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 1.6
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea	✓				
Soil/Sediment: Received in airtight container?	✓				
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?	✓				
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2	✓				
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

Katahdin Analytical Services, Inc.

Sample Receipt Condition Report

Client: Tetra Tech	KAS PM: KAP	Sampled By: Client	
Project:	KIMS Entry By: GN	Delivered By: Fed-Ex	
KAS Work Order#: SE2433	KIMS Review By:	Received By: GN	
SDG #:	Cooler: 2 of 3	Date/Time Rec.: 5-5-11 / 1010	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 0.7
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

Kataholn Analytical Services, Inc.

Sample Receipt Condition Report

Client: Tetra Tech	KAS PM: KAP	Sampled By: Client	
Project:	KIMS Entry By: GN	Delivered By: FedEx	
KAS Work Order#: SE2433	KIMS Review By:	Received By: GN	
SDG #:	Cooler: 3 of 3	Date/Time Rec.: 5-5-11/10:00	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 3.4
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

0000011

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

May. 05, 2011
05:57 PM

Login Number: SE2433

Account: TETRAT001 Web
Tetra Tech NUS, Inc.

Project: TETRATJAXJM19
NAS Jacksonville CTO JM19 PSC45 RI

Quote/Incoming:

Primary Report Address:

Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh,PA 15220

Primary Invoice Address:

Accounts Payable
Tetra Tech NUS, Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh,PA 15220

Report CC Addresses:

Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	7 day hardcopy. DoD QSM with lab limits. ND to both MDL and LOQ. LODs need to be on forms. FL flagging. Metals run MS/lab dup- if MS out run post digestion spike. Metals run serial dilution.
CHECK NO.	:	
CLIENT PO#	:	1063749 112G01511
CLIENT PROJECT MANAGE	:	
CONTRACT	:	
COOLER TEMPERATURE	:	1.6, 0.7, 3.4
DELIVERY SERVICES	:	FedEx
EDD FORMAT	:	KAS119QC-CSV
LOGIN INITIALS	:	DD
PM	:	KAP
PROJECT NAME	:	NAS Jacksonville, CTO JM19 PSC45 RI
QC LEVEL	:	IV
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Summary package needs all forms. Send hardcopy, CD and EDD to Tobrena.
SDG ID	:	JAX01
SDG STATUS	:	Begin/End

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE2433-1	B200-MW01S-20110504	04-MAY-11 08:45	05-MAY-11		11-MAY-11	11-MAY-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	FL-PRO	11-MAY-11			NAS-JAX-45-B200-MW01S-20110504
Aqueous	S	SW8082-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8260-S	18-MAY-11	40mL Vial+HCl		
Aqueous	S	SW8270-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	11-MAY-11	1L N-Amber Glass		
Aqueous	P	TAL-METALS-SW846		250mL Plastic+HNO3		

SW3010-PREP	SW6010-ALUMINUM	SW6010-ANTIMONY
SW6010-ARSENIC	SW6010-BARIUM	SW6010-BERYLLIUM
SW6010-CADMIUM	SW6010-CALCIUM	SW6010-CHROMIUM
SW6010-COBALT	SW6010-COPPER	SW6010-IRON
SW6010-LEAD	SW6010-MAGNESIUM	SW6010-MANGANESE
SW6010-NICKEL	SW6010-POTASSIUM	SW6010-SELENIUM
SW6010-SILVER	SW6010-SODIUM	SW6010-THALLIUM
SW6010-VANADIUM	SW6010-ZINC	SW7470-MERCURY

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE2433-2	B200-MW01D-20110504	04-MAY-11 10:00	05-MAY-11		11-MAY-11	11-MAY-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	FL-PRO	11-MAY-11			NAS-JAX-45-B200-MW01D-20110504
Aqueous	S	SW8082-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8260-S	18-MAY-11	40mL Vial+HCl		
Aqueous	S	SW8270-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	11-MAY-11	1L N-Amber Glass		
Aqueous	P	TAL-METALS-SW846		250mL Plastic+HNO3		

SW3010-PREP	SW6010-ALUMINUM	SW6010-ANTIMONY
SW6010-ARSENIC	SW6010-BARIUM	SW6010-BERYLLIUM
SW6010-CADMIUM	SW6010-CALCIUM	SW6010-CHROMIUM
SW6010-COBALT	SW6010-COPPER	SW6010-IRON
SW6010-LEAD	SW6010-MAGNESIUM	SW6010-MANGANESE
SW6010-NICKEL	SW6010-POTASSIUM	SW6010-SELENIUM
SW6010-SILVER	SW6010-SODIUM	SW6010-THALLIUM
SW6010-VANADIUM	SW6010-ZINC	SW7470-MERCURY

00000013
KAP 5/5/11

Katahdin ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

May. 05, 2011
05:57 PM

Login Number: SE2433

Quote/Incoming:

Account: TETRAT001 Web
Tetra Tech NUS, Inc.

Project: TETRATJAXJM19
NAS Jacksonville CTO JM19 PSC45 RI

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE2433-3	B200-MW02S-20110504	04-MAY-11 12:40	05-MAY-11		11-MAY-11	11-MAY-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	FL-PRO	11-MAY-11			NAS-JAX-45-B200-MW02S-20110504
Aqueous	S	SW8082-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8260-S	18-MAY-11	40mL Vial+HCl		
Aqueous	S	SW8270-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	11-MAY-11	1L N-Amber Glass		
Aqueous	P	TAL-METALS-SW846		250mL Plastic+HNO3		

SW3010-PREP	SW6010-ALUMINUM	SW6010-ANTIMONY
SW6010-ARSENIC	SW6010-BARIUM	SW6010-BERYLLIUM
SW6010-CADMIUM	SW6010-CALCIUM	SW6010-CHROMIUM
SW6010-COBALT	SW6010-COPPER	SW6010-IRON
SW6010-LEAD	SW6010-MAGNESIUM	SW6010-MANGANESE
SW6010-NICKEL	SW6010-POTASSIUM	SW6010-SELENIUM
SW6010-SILVER	SW6010-SODIUM	SW6010-THALLIUM
SW6010-VANADIUM	SW6010-ZINC	SW7470-MERCURY

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE2433-4	B200-MW02D-20110504	04-MAY-11 12:25	05-MAY-11		11-MAY-11	11-MAY-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	FL-PRO	11-MAY-11			NAS-JAX-45-B200-MW02D-20110504
Aqueous	S	SW8082-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8260-S	18-MAY-11	40mL Vial+HCl		
Aqueous	S	SW8270-S	11-MAY-11	1L N-Amber Glass		
Aqueous	S	SW8270SIM-S	11-MAY-11	1L N-Amber Glass		
Aqueous	P	TAL-METALS-SW846		250mL Plastic+HNO3		

SW3010-PREP	SW6010-ALUMINUM	SW6010-ANTIMONY
SW6010-ARSENIC	SW6010-BARIUM	SW6010-BERYLLIUM
SW6010-CADMIUM	SW6010-CALCIUM	SW6010-CHROMIUM
SW6010-COBALT	SW6010-COPPER	SW6010-IRON
SW6010-LEAD	SW6010-MAGNESIUM	SW6010-MANGANESE
SW6010-NICKEL	SW6010-POTASSIUM	SW6010-SELENIUM
SW6010-SILVER	SW6010-SODIUM	SW6010-THALLIUM
SW6010-VANADIUM	SW6010-ZINC	SW7470-MERCURY

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SE2433-5	TRIP BLANK	01-MAY-11 00:00	05-MAY-11		11-MAY-11	11-MAY-11	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	15-MAY-11	40mL Vial+HCl		

Total Samples: *5* ***Total Analyses:*** *25*

00000014
Kap 5/5/11

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
TETRA TECH NUS
CASE NAS JACKSONVILLE CTO JM19 PSC45 RI
SDG: JAX01
SE2433

Sample Receipt

The following samples were received on May 5, 2011 and were logged in under Katahdin Analytical Services work order number SE2433 for a hardcopy due date of May 11, 2011.

KATAHDIN Sample No.	TTNUS Sample Identification
SE2433-1	B200-MW01S-20110504
SE2433-2	B200-MW01D-20110504
SE2433-3	B200-MW02S-20110504
SE2433-4	B200-MW02D-20110504
SE2433-5	TRIP BLANK

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

The client IDs on the Chain of Custody exceeds the 19-character limit of the Katahdin Analytical Information Management System. Therefore, the first characters "NAS-JAX-45-" in the client IDs for SE2433-1 through -4 were omitted on all forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Kelly Perkins**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of SDG JAX01 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, and III 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or for the specific methods listed below or on the Report of Analysis.

FL-PRO Analysis

Surrogate recoveries for all samples and QC were evaluated using the method acceptance limits for the surrogate o-terphenyl and laboratory nominal acceptance limit for the surrogate n-Triacontance-D_{62}.

The spike recoveries for the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were evaluated using the method acceptance limits.

Sample SE2433-1DL was manually integrated for the target range PRO and the extraction surrogates o-Terphenyl and n-Triacontance-D_{62}. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Sample SE2433-3 had low recoveries for the extraction surrogates o-terphenyl and n-Triacontance-D_{62} that were outside of the acceptance limits. The sample was reextracted within hold time and had low recovery for the surrogate o-terphenyl but an acceptable recovery for the surrogate n-Triacontance-D_{62}. Therefore, the results from the reextraction are reported.

8270C SCAN Analysis

Surrogate recoveries for all samples and QC, as well as spike recoveries for the laboratory control sample and laboratory control sample duplicate (LCS/LCSD), were evaluated using laboratory established acceptance limits.

The initial calibration analyzed on the U instrument on 04/27/11 had %RSD values for several analytes that exceeded the method acceptance limit of 15%. For these analytes, a quadratic model was used for quantitation instead of an average response factor. The target analyte 4-nitrophenol, benzaldehyde and atrazine failed for both the linear and quadratic models in the initial calibration curve due to the correlation coefficient and the coefficient of determination being less than the method acceptance criteria of 0.995 and 0.990 respectively. These compounds were calibrated using the average model. The corresponding independent check standard (file U5481) had a low concentration for the target analyte benzaldehyde, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The analyte atrazine was not detected. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The analyte benzaldehyde is an EPA CLP compound that is very sensitive to the condition of the injection port of the GC/MS instrument. Consequently, the response of this analyte may fluctuate from one analysis to another which may result in high %RSD's for initial calibrations, high %D's for CV's, and low or high recoveries for LCS's.

The CV (file U5636) had a low response for the analyte benzaldehyde, which resulted in a %D that was greater than the acceptance limit of 20% from DoD QSM Version 4.1.

8082 Analysis

Surrogate recoveries for all samples and QC, as well as spike recoveries for the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were evaluated using laboratory established acceptance limits.

Sample SE2433-3 had low recoveries for the surrogates TCX and DCB on both channels which were outside of the laboratory established acceptance limits. Since there were low surrogate recoveries for this sample for other analytical analyses, the sample was not reextracted.

The method blank WG91144-1 had low recoveries for the surrogate TCX on both channels which were outside of the laboratory established acceptance limits. Since the recoveries for DCB were acceptable, the associated samples were not reextracted.

The opening CV (file 7EE140) had high responses for TCX, Aroclor 1016 and Aroclor 1260 on channel A, which resulted in %D's that were outside of the DoD QSM acceptance limits of 20%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

The closing CV (file 7EE155) had high responses for TCX and DCB on both channels, which resulted in %D's that were outside of the DoD QSM acceptance limits of 20%.

Sample SE2433-1 was manually integrated for TCX. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

8270C SIM Analysis

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

Samples SE2433-1 and 3 were manually integrated for the analytes acenaphthene, benzo(a)pyrene and/or the internal standard acenaphthene-d10. The specific reason for the manual integration is indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Sample SE2433-1 had a high response for one internal standard which was outside the DoD QSM acceptance limit of -50% to +100% of the response of the internal standard of the ICAL midpoint standard. Based on the sample chromatogram, the high response is likely due to sample interference. The sample was reanalyzed at a dilution and had acceptable internal standard responses. For these reasons, the sample was not reanalyzed undiluted.

The independent check standard (file N0436) associated with the initial calibration on 05/10/11 had a low concentration for the target analyte benzo(a)anthracene, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated. The Form 7 for the CV (file N0445) had a high response for the surrogate fluorene-d10. This response resulted in a %D that was greater than the acceptance limit of 20% from DoD QSM Version 4.1.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long the LCS is acceptable.

8260B Analysis

Surrogate recoveries for all samples and QC, as well as spike recoveries for the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were evaluated using laboratory established acceptance limits.

Samples SE2433-1, 4 and 4DL were manually integrated for benzene and/or cis-1,2-dichloroethene. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The independent check standard (file S3728a), associated with the initial calibration analyzed on the S instrument on 05/06/11 had a low response for the target analyte chloroethane and a high response for the analyte 1,1-dichloroethene, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard is the same source as the LCS. Since the LCS WG91242-1 had acceptable LCS recoveries the associated samples were not reanalyzed. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The calibration verification standard (CV) (file S37270) had a low response for the compound chloroethane. The CV (file T1993) had a high response for the compounds trichlorotrifluoromethane. These responses resulted in %D's that were greater than the DoD QSM version 4.1 acceptance limits of 20%. Since the associated LCS's (WG912421 and WG91391-1) had recoveries that were within the laboratory established acceptance limits for the aforementioned compounds, the associated samples were not reanalyzed.

There were no other protocol deviations or observations noted by the organics laboratory staff.

Metals Analysis

The samples of SDG JAX01 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Aqueous-matrix Katahdin Sample Numbers SE2433-(1-4) were digested for ICP analysis on 05/05/11 (QC Batch BE05ICW0) in accordance with USEPA Method 3010A. The measured

calcium concentration of the preparation blank in this batch is above the laboratory's control limit. However, because the measured calcium concentrations of all associated samples are greater than ten times that of the preparation blank, no corrective action was necessary.

ICP analyses of SDG JAX01 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010. All samples were analyzed within holding times and all analytical run QC criteria were met.

Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Aqueous-matrix Katahdin Sample Numbers SE2433-(1-4) were digested for mercury analysis on 05/06/11 (QC Batch BE06HGW0) in accordance with USEPA Method 7470A. Katahdin Sample Number SE2433-2 was prepared with duplicate matrix-spiked aliquots.

Mercury analyses of SDG JAX01 sample digestate was performed using a Cetac M6100 automated mercury analyzer in accordance with USEPA Method 7470A. All samples were analyzed within holding times and all analytical run QC criteria were met.

Matrix QC Summary

The measured recovery of mercury in the matrix-spiked aliquots of Katahdin Sample Number SE2433-2 is within the project acceptance criteria (80% - 120% recovery of the added element, if the native concentration is less than four times the amount added).

The matrix-spike duplicate analysis of Katahdin Sample Number SE2433-2 is within the laboratory's acceptance limit (<20% relative difference between matrix-spike duplicate aliquots) for mercury.

The serial dilution analysis of Katahdin Sample Number SE2433-2 is within the laboratory's acceptance limit (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the LOQ) for all mercury.

Reporting of Metals Results

Analytical results for client samples have been reported down to the laboratory's method detection limits (MDLs) throughout the accompanying data package. These MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis. Results that fall between the MDL and the laboratory's limits of quantitation (LOQ) are flagged with "I" in the C-qualifier column, and the measured concentration appears in the concentration column. Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the MDL is listed in the concentration column. These LOQ's, MDLs and LODs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VA, VD, VII, and IX for client samples, matrix QC samples (duplicates and matrix spikes), and laboratory control samples have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the measured concentration is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, LODs, MDLs, and LOQs are listed on Form 10 of the accompanying data package.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond
05/21/11

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

KATAHDIN ANALYTICAL SERVICES - FLORIDA DATA QUALIFIERS

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range of highest calibration standard) and the calibration curve is known to exhibit a negative deflection.

J Estimated value. A justification will be included in the narrative for any result that has been flagged with a "J".

V Indicates the analyte was detected in the sample and the associated method blank.

N Presumptive evidence of a compound based on a mass spectral library search.

Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis

Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
J	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
J	Spiked sample recovery not within control limits.
J	Duplicate sample analysis not within control limits.
•	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called the Practical Quantitation Limit (PQL)), the Limit of Detection (LOD) or the Method Detection Limit (MDL) as required by the client. Note: All results reported as "U" MDL have a greater rate for false negatives, i.e. greater than 1%, than those results reported as "U" PQL/LOQ or "U" LOD.
I	The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ) (previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID: SB046 BFB Injection Date: 05/06/11

Instrument ID: GCMS-S BFB Injection Time: 0753

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.3
75	30.0 - 60.0% of mass 95	43.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	76.6
175	5.0 - 9.0% of mass 174	4.6 (6.0)1
176	95.0 - 101.0% of mass 174	73.5 (95.9)1
177	5.0 - 9.0% of mass 176	4.7 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD200S06A	S3719	05/06/11	0922
02		VSTD020S06A	S3721	05/06/11	1025
03		VSTD005S06A	S3722	05/06/11	1057
04		VSTD001S06A	S3723	05/06/11	1128
05		VSTD100S06A	S3724	05/06/11	1159
06		VSTD050S06B	S3725	05/06/11	1305
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-S Calibration Date(s): 05/06/11 05/06/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 0817 1305

LAB FILE ID: RF1: S3723 RF5: S3722 RF20: S3721
RF50: S3725 RF100: S3724 RF200: S3719

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
m+p-Xylenes	0.697	0.685	0.728	0.653	0.639	0.551	AVRG		0.65878105		9.361	15.000
o-Xylene	0.620	0.628	0.659	0.617	0.632	0.623	AVRG		0.62972746		2.433	15.000
Dichlorodifluoromethane	0.838	0.820	0.745	0.802	0.849	0.907	AVRG		0.82686869		6.497	15.000
Chloromethane	0.768	0.748	0.718	0.693	0.756	0.952	AVRG		0.77267261		11.926	15.000
Vinyl chloride	0.619	0.722	0.651	0.704	0.734	0.783	AVRG		0.70197860		8.405	15.000
Bromomethane	0.450	0.370	0.302	0.354	0.407	0.342	AVRG		0.37089592		13.992	15.000
Chloroethane	2680	15238	34805	134880	302680	504400	2ORDR	6.387e-002	2.58721323	0.54696460	0.99518	0.99000
Trichlorofluoromethane	0.867	0.872	0.798	0.850	0.853	0.910	AVRG		0.85806961		4.249	15.000
1,1-Dichloroethene	0.420	0.516	0.508	0.465	0.519	0.526	AVRG		0.49233967		8.431	15.000
Carbon Disulfide	1.817	1.753	1.812	1.667	1.861	1.935	AVRG		1.80746087		5.065	15.000
Freon-113	0.378	0.356	0.363	0.363	0.399	0.404	AVRG		0.37732640		5.381	15.000
Methylene Chloride	8522	29467	109890	280420	539500	1082800	LINR	1.715e-002	1.55629338		0.99947	0.99000
Acetone	0.088	0.106	0.104	0.101	0.080	0.106	AVRG		9.751e-002		10.880	15.000
trans-1,2-Dichloroethene	0.600	0.626	0.630	0.604	0.630	0.638	AVRG		0.62147172		2.476	15.000
Methyl tert-butyl ether	1.307	1.405	1.460	1.486	1.330	1.539	AVRG		1.42143214		6.386	15.000
1,1-Dichloroethane	0.829	0.898	0.952	0.903	0.912	0.951	AVRG		0.90765913		4.961	15.000
cis-1,2-Dichloroethene	0.636	0.602	0.646	0.619	0.642	0.665	AVRG		0.63505093		3.433	15.000
Chloroform	1.020	0.952	0.997	0.940	0.972	0.997	AVRG		0.97971819		3.112	15.000
Carbon Tetrachloride	0.338	0.367	0.390	0.374	0.371	0.379	AVRG		0.36998056		4.704	15.000
1,1,1-Trichloroethane	0.755	0.753	0.787	0.754	0.787	0.776	AVRG		0.76873712		2.142	15.000
2-Butanone	0.163	0.180	0.182	0.178	0.138	0.168	AVRG		0.16797815		9.900	15.000
Benzene	1.273	1.271	1.358	1.231	1.232	1.196	AVRG		1.26022157		4.411	15.000
Cyclohexane	0.751	0.740	0.765	0.728	0.748	0.753	AVRG		0.74743379		1.682	15.000
1,2-Dichloroethane	0.397	0.360	0.376	0.383	0.352	0.366	AVRG		0.37230077		4.368	15.000
Trichloroethene	0.432	0.355	0.360	0.333	0.339	0.313	AVRG		0.35532283		11.530	15.000
1,2-Dichloropropane	0.289	0.287	0.326	0.306	0.307	0.291	AVRG		0.30117457		4.948	15.000
Bromodichloromethane	0.378	0.419	0.461	0.449	0.440	0.442	AVRG		0.43176044		6.816	15.000
cis-1,3-dichloropropene	0.490	0.503	0.552	0.522	0.494	0.522	AVRG		0.51395263		4.506	15.000
Toluene	0.716	0.751	0.802	0.766	0.748	0.727	AVRG		0.75178933		4.058	15.000
4-methyl-2-pentanone	15453	90077	365390	851350	1229400	2530400	2ORDR	-0.2050735	5.33766736	0.17691841	0.99297	0.99000
Tetrachloroethene	0.358	0.362	0.370	0.337	0.345	0.298	AVRG		0.34493372		7.485	15.000
trans-1,3-Dichloropropene	0.412	0.413	0.454	0.439	0.408	0.434	AVRG		0.42650520		4.294	15.000
1,1,2-Trichloroethane	0.251	0.251	0.264	0.257	0.241	0.246	AVRG		0.25165581		3.273	15.000
Dibromochloromethane	0.393	0.428	0.485	0.484	0.477	0.501	AVRG		0.46143580		9.008	15.000
1,2-Dibromoethane	0.339	0.334	0.367	0.360	0.337	0.358	AVRG		0.34915524		4.018	15.000
2-Hexanone	0.188	0.196	0.214	0.202	0.149	0.179	AVRG		0.18793609		11.924	15.000
Chlorobenzene	1.118	1.119	1.140	1.051	1.051	1.014	AVRG		1.08222177		4.641	15.000
Ethylbenzene	0.550	0.563	0.571	0.517	0.529	0.503	AVRG		0.53885740		4.970	15.000
Xylenes (total)							AVRG					0.000
Styrene	0.928	1.038	1.164	1.080	1.087	1.066	AVRG		1.06056036		7.296	15.000
Bromoform	0.285	0.299	0.327	0.320	0.300	0.333	AVRG		0.31077614		6.021	15.000
Isopropylbenzene	2.888	3.018	3.031	2.765	2.832	2.697	AVRG		2.87163218		4.682	15.000
1,1,2,2-Tetrachloroethane	1.001	1.072	1.078	1.046	0.933	1.028	AVRG		1.02623666		5.258	15.000
1,3-Dichlorobenzene	1.885	1.739	1.716	1.570	1.618	1.553	AVRG		1.68011866		7.475	15.000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-S Calibration Date(s): 05/06/11 05/06/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 0817 1305

LAB FILE ID: RF1: S3723 RF5: S3722 RF20: S3721
RF50: S3725 RF100: S3724 RF200: S3719

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	COEFFICENTS A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dichlorobenzene	1.792	1.656	1.695	1.610	1.616	1.588	AVRG		1.65964730		4.546	15.000
1,2-Dichlorobenzene	1.582	1.530	1.566	1.491	1.526	1.482	AVRG		1.52969859		2.600	15.000
1,2-Dibromo-3-Chloropropa	0.171	0.162	0.170	0.160	0.120	0.166	AVRG		0.15797578		12.139	15.000
1,2,4-Trichlorobenzene	0.612	0.661	0.701	0.643	0.659	0.758	AVRG		0.67231478		7.591	15.000
Methyl Acetate	0.278	0.347	0.323	0.348	0.276	0.367	AVRG		0.32301878		11.838	15.000
Methylcyclohexane	0.952	0.770	0.773	0.775	0.809	0.788	AVRG		0.81127317		8.665	15.000
Dibromofluoromethane	0.665	0.628	0.671	0.661	0.695	0.682	AVRG		0.66718094		3.394	15.000
1,2-Dichloroethane-D4	0.573	0.522	0.531	0.514	0.505	0.505	AVRG		0.52501926		4.849	15.000
Toluene-D8	1.092	0.985	1.114	1.047	1.057	1.000	AVRG		1.04906715		4.801	15.000
P-Bromofluorobenzene	0.421	0.395	0.444	0.427	0.421	0.421	AVRG		0.42155231		3.732	15.000

Average %RSD test result.

Calculate Average %RSD: 8.601341248
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID: SB047 BFB Injection Date: 05/06/11

Instrument ID: GCMS-S BFB Injection Time: 1812

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	42.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	80.7
175	5.0 - 9.0% of mass 174	5.2 (6.4)1
176	95.0 - 101.0% of mass 174	78.3 (97.1)1
177	5.0 - 9.0% of mass 176	5.3 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050S06C	S3727	05/06/11	1922
02	WG91242-LCS	WG91242-1	S3728B	05/06/11	2005
03		IND CHECK	S3728A	05/06/11	2005
04	WG91242-BLANK	WG91242-2	S3730B	05/06/11	2119
05	TRIP BLANK	SE2433-5	S3731	05/06/11	2154
06	B200-MW01D-20110504	SE2433-2	S3735	05/07/11	0004
07	B200-MW02D-20110504	SE2433-4	S3736	05/07/11	0036
08	B200-MW01S-20110504	SE2433-1	S3737	05/07/11	0108
09	B200-MW02S-20110504	SE2433-3	S3738	05/07/11	0141
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FORM V VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-S Calibration Date: 05/06/11 Time: 1922

Lab File ID: S3727 Init. Calib. Date(s): 05/06/11 05/06/11

Init. Calib. Times: 0817 1305

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dichlorodifluoromethane	0.8270000	0.8019500	0.8019500	0.01	-3.03	20.00	AVRG	
Chloromethane	0.7720000	0.6741600	0.6741600	0.1	-12.67	20.00	AVRG	
Vinyl chloride	0.7020000	0.6337900	0.6337900	0.01	-9.72	20.00	AVRG	
Bromomethane	0.3710000	0.3085000	0.3085000	0.01	-16.85	20.00	AVRG	
Chloroethane	0.2940000	0.2278800	0.2278800	0.01	-22.49	20.00	AVRG	<--
Trichlorofluoromethane	0.8580000	0.8656200	0.8656200	0.01	0.89	20.00	AVRG	
1,1-Dichloroethene	0.4920000	0.4420300	0.4420300	0.01	-10.16	20.00	AVRG	
Carbon Disulfide	1.8080000	1.5666000	1.5666000	0.01	-13.35	20.00	AVRG	
Freon-113	0.3770000	0.3376300	0.3376300	0.01	-10.44	20.00	AVRG	
Methylene Chloride	45.502000	50.000000	0.5737300	0.01	-9.00	20.00	LINR	
Acetone	9.8e-002	0.1005300	0.1005300	0.01	2.58	20.00	AVRG	
trans-1,2-Dichloroethene	0.6210000	0.5567700	0.5567700	0.01	-10.34	20.00	AVRG	
Methyl tert-butyl ether	1.4210000	1.3952000	1.3952000	0.01	-1.82	20.00	AVRG	
1,1-Dichloroethane	0.9080000	0.8516200	0.8516200	0.1	-6.21	20.00	AVRG	
cis-1,2-Dichloroethene	0.6350000	0.6196300	0.6196300	0.01	-2.42	20.00	AVRG	
Chloroform	0.9800000	0.9214400	0.9214400	0.01	-5.98	20.00	AVRG	
Carbon Tetrachloride	0.3700000	0.3496500	0.3496500	0.01	-5.50	20.00	AVRG	
1,1,1-Trichloroethane	0.7690000	0.6976200	0.6976200	0.01	-9.28	20.00	AVRG	
2-Butanone	0.1680000	0.1681000	0.1681000	0.01	0.06	20.00	AVRG	
Benzene	1.2600000	1.1840000	1.1840000	0.01	-6.03	20.00	AVRG	
Cyclohexane	0.7480000	0.6549400	0.6549400	0.01	-12.44	20.00	AVRG	
1,2-Dichloroethane	0.3720000	0.3579500	0.3579500	0.01	-3.78	20.00	AVRG	
Trichloroethene	0.3550000	0.3159900	0.3159900	0.01	-10.99	20.00	AVRG	
1,2-Dichloropropane	0.3010000	0.3020400	0.3020400	0.01	0.34	20.00	AVRG	
Bromodichloromethane	0.4320000	0.4433400	0.4433400	0.01	2.62	20.00	AVRG	
cis-1,3-dichloropropene	0.5140000	0.5137200	0.5137200	0.01	-0.05	20.00	AVRG	
Toluene	0.7520000	0.7121400	0.7121400	0.01	-5.30	20.00	AVRG	
4-methyl-2-pentanone	281.30000	250.00000	0.2111000	0.01	12.52	20.00	2RDR	
Tetrachloroethene	0.3450000	0.3039800	0.3039800	0.01	-11.89	20.00	AVRG	

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-S Calibration Date: 05/06/11 Time: 1922

Lab File ID: S3727 Init. Calib. Date(s): 05/06/11 05/06/11

Init. Calib. Times: 0817 1305

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.4270000	0.4314100	0.4314100	0.01	1.03	20.00	AVRG	
1,1,2-Trichloroethane	0.2520000	0.2592200	0.2592200	0.01	2.86	20.00	AVRG	
Dibromochloromethane	0.4610000	0.4803800	0.4803800	0.01	4.20	20.00	AVRG	
1,2-Dibromoethane	0.3490000	0.3627400	0.3627400	0.01	3.94	20.00	AVRG	
2-Hexanone	0.1880000	0.1901900	0.1901900	0.01	1.16	20.00	AVRG	
Chlorobenzene	1.0820000	1.0459000	1.0459000	0.3	-3.34	20.00	AVRG	
Ethylbenzene	0.5390000	0.5177800	0.5177800	0.01	-3.94	20.00	AVRG	
Xylenes (total)	0.0000000	0.6226300	0.6226300	0.01	0.00	20.00	AVRG	<-
Styrene	1.0600000	1.0819000	1.0819000	0.01	2.07	20.00	AVRG	
Bromoform	0.3110000	0.3250500	0.3250500	0.1	4.52	20.00	AVRG	
Isopropylbenzene	2.8720000	2.8130000	2.8130000	0.01	-2.05	20.00	AVRG	
1,1,2,2-Tetrachloroethane	1.0260000	1.0603000	1.0603000	0.3	3.34	20.00	AVRG	
1,3-Dichlorobenzene	1.6800000	1.6152000	1.6152000	0.01	-3.86	20.00	AVRG	
1,4-Dichlorobenzene	1.6600000	1.6703000	1.6703000	0.01	0.62	20.00	AVRG	
1,2-Dichlorobenzene	1.5300000	1.5824000	1.5824000	0.01	3.42	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	0.1580000	0.1376800	0.1376800	0.01	-12.86	20.00	AVRG	
1,2,4-Trichlorobenzene	0.6720000	0.6842400	0.6842400	0.01	1.82	20.00	AVRG	
Methyl Acetate	0.3230000	0.3145900	0.3145900	0.01	-2.60	20.00	AVRG	
Methylcyclohexane	0.8110000	0.7417500	0.7417500	0.01	-8.54	20.00	AVRG	
Dibromofluoromethane	0.6670000	0.5912400	0.5912400	0.01	-11.36	20.00	AVRG	
1,2-Dichloroethane-D4	0.5250000	0.4492400	0.4492400	0.01	-14.43	20.00	AVRG	
Toluene-D8	1.0490000	0.9600600	0.9600600	0.01	-8.48	20.00	AVRG	
P-Bromofluorobenzene	0.4220000	0.3797200	0.3797200	0.01	-10.02	20.00	AVRG	

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID: TB243 BFB Injection Date: 05/05/11

Instrument ID: GCMS-T BFB Injection Time: 1225

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	45.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	97.2
175	5.0 - 9.0% of mass 174	7.5 (7.8)1
176	95.0 - 101.0% of mass 174	93.9 (96.6)1
177	5.0 - 9.0% of mass 176	5.8 (6.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD200T05A	T1891	05/05/11	1255
02		VSTD100T05A	T1892	05/05/11	1327
03		VSTD050T05A	T1893	05/05/11	1400
04		VSTD020T05A	T1894	05/05/11	1433
05		VSTD005T05A	T1895	05/05/11	1505
06		VSTD001T05A	T1896	05/05/11	1538
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FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-T Calibration Date(s): 05/05/11 05/05/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1255 1538

LAB FILE ID: RF1: T1896 RF5: T1895 RF20: T1894
RF50: T1893 RF100: T1892 RF200: T1891

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2	
m+p-Xylenes	1.007	0.956	0.935	0.894	0.842	0.809	AVRG		0.90728387		8.123	15.000	
o-Xylene	0.905	0.958	0.909	0.882	0.853	0.833	AVRG		0.88998513		5.009	15.000	
Dichlorodifluoromethane	1.131	1.324	1.277	1.298	1.166	1.184	AVRG		1.22987389		6.471	15.000	
Chloromethane	0.756	0.770	0.794	0.728	0.636	0.606	AVRG		0.71513754		10.660	15.000	
Vinyl chloride	0.608	0.681	0.642	0.616	0.562	0.571	AVRG		0.61317246		7.235	15.000	
Bromomethane	0.535		0.421	0.413	0.386	0.390	AVRG		0.42905297		14.178	15.000	
Chloroethane	0.388	0.406	0.390	0.358	0.334	0.327	AVRG		0.36693558		8.783	15.000	
Trichlorofluoromethane	1.494	1.630	1.597	1.599	1.438	1.107	AVRG		1.47755151		13.244	15.000	
1,1-Dichloroethene	0.642	0.605	0.613	0.617	0.579	0.544	AVRG		0.60022178		5.709	15.000	
Carbon Disulfide	16369	63879	250330	629950	1148600	2157200	LINR	-5.78e-002	0.67684766		0.99794	0.99000	
Freon-113	0.520	0.605	0.628	0.619	0.573	0.550	AVRG		0.58253498		7.262	15.000	
Methylene Chloride	0.830	0.673	0.692	0.631	0.580	0.553	AVRG		0.65983728		14.995	15.000	
Acetone	0.223	0.258	0.252	0.234	0.231	0.221	AVRG		0.23642219		6.478	15.000	
trans-1,2-Dichloroethene	0.717	0.712	0.732	0.719	0.655	0.628	AVRG		0.69385720		6.037	15.000	
Methyl tert-butyl ether	0.623	0.764	0.758	0.702	0.724	0.775	AVRG		0.72423624		7.789	15.000	
1,1-Dichloroethane	1.162	1.184	1.206	1.140	1.074	1.034	AVRG		1.13342971		5.855	15.000	
cis-1,2-Dichloroethene	0.784	0.771	0.775	0.740	0.658	0.625	AVRG		0.72553798		9.320	15.000	
Chloroform	1.378	1.420	1.473	1.381	1.282	1.249	AVRG		1.36393825		6.172	15.000	
Carbon Tetrachloride	4424	32753	142730	377570	750330	1500600	LINR	8.519e-003	1.28250622		0.99964	0.99000	
1,1,1-Trichloroethane	1.202	1.314	1.379	1.329	1.239	1.206	AVRG		1.27822866		5.717	15.000	
2-Butanone	0.183	0.238	0.244	0.233	0.229	0.225	AVRG		0.22520510		9.679	15.000	
Benzene	1.597	1.634	1.610	1.561	1.392	1.319	AVRG		1.51879454		8.601	15.000	
Cyclohexane	0.742	0.873	0.859	0.843	0.749	0.708	AVRG		0.79591105		8.849	15.000	
1,2-Dichloroethane	0.872	0.912	0.900	0.891	0.846	0.848	AVRG		0.87830391		3.144	15.000	
Trichloroethene	0.604	0.586	0.542	0.557	0.487	0.441	AVRG		0.53609012		11.491	15.000	
1,2-Dichloropropane	0.326	0.372	0.396	0.374	0.334	0.310	AVRG		0.35237162		9.455	15.000	
Bromodichloromethane	0.678	0.746	0.778	0.775	0.727	0.714	AVRG		0.73609650		5.205	15.000	
cis-1,3-dichloropropene	0.642	0.748	0.773	0.761	0.692	0.679	AVRG		0.71583973		7.321	15.000	
Toluene	1.146	1.105	1.102	1.055	0.940	0.893	AVRG		1.04003513		9.710	15.000	
4-methyl-2-pentanone	0.286	0.350	0.362	0.351	0.334	0.335	AVRG		0.33618711		7.965	15.000	
Tetrachloroethene	7749	36406	128380	276880	514550	751860	2ORDR	1.461e-002	1.04485847	0.42673342	0.99864	0.99000	
trans-1,3-Dichloropropene	0.625	0.648	0.657	0.672	0.642	0.643	AVRG		0.64785741		2.463	15.000	
1,1,2-Trichloroethane	0.240	0.312	0.295	0.288	0.262	0.246	AVRG		0.27392311		10.457	15.000	
Dibromochloromethane	0.499	0.693	0.756	0.749	0.768	0.796	AVRG		0.71032591		15.324	15.000	<-
1,2-Dibromoethane	0.455	0.486	0.492	0.476	0.450	0.444	AVRG		0.46710753		4.320	15.000	
2-Hexanone	0.226	0.281	0.293	0.284	0.296	0.304	AVRG		0.28067123		10.034	15.000	
Chlorobenzene	1.477	1.426	1.465	1.427	1.368	1.351	AVRG		1.41890921		3.563	15.000	
Ethylbenzene	0.752	0.754	0.758	0.734	0.711	0.703	AVRG		0.73549723		3.215	15.000	
Xylenes (total)							AVRG					0.000	
Styrene	1.498	1.520	1.522	1.502	1.443	1.410	AVRG		1.48256337		3.074	15.000	
Bromoform	0.357	0.455	0.503	0.530	0.546	0.562	AVRG		0.49235208		15.426	15.000	<-
Isopropylbenzene	3.927	3.834	3.641	3.509	3.167	2.965	AVRG		3.50692895		10.751	15.000	
1,1,2,2-Tetrachloroethane	0.610	0.731	0.766	0.740	0.711	0.674	AVRG		0.70549966		7.900	15.000	
1,3-Dichlorobenzene	2.384	2.114	2.004	1.957	1.783	1.630	AVRG		1.97864079		13.247	15.000	

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-T Calibration Date(s): 05/05/11 05/05/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1255 1538

LAB FILE ID: RF1: T1896 RF5: T1895 RF20: T1894
RF50: T1893 RF100: T1892 RF200: T1891

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	COEFFICENTS A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dichlorobenzene	2.338	2.023	1.979	1.897	1.716	1.584	AVRG		1.92284106		13.642	15.000
1,2-Dichlorobenzene	2.028	1.877	1.838	1.776	1.627	1.492	AVRG		1.77298829		10.724	15.000
1,2-Dibromo-3-Chloropropa	0.117	0.132	0.149	0.155	0.150	0.150	AVRG		0.14208051		10.268	15.000
1,2,4-Trichlorobenzene	0.829	0.946	1.121	1.162	1.110	1.055	AVRG		1.03744256		12.174	15.000
Methyl Acetate	0.524	0.384	0.375	0.385	0.382	0.377	AVRG		0.40444056		14.589	15.000
Methylcyclohexane	0.875	0.902	0.980	0.933	0.821	0.754	AVRG		0.87757818		9.175	15.000
Dibromofluoromethane	1.014	0.879	0.917	0.843	0.764	0.729	AVRG		0.85774539		12.101	15.000
1,2-Dichloroethane-D4	1.150	0.961	0.998	0.944	0.889	0.859	AVRG		0.96685806		10.627	15.000
Toluene-D8	18760	75496	301540	732540	1367900	2449500	LINR	-6.8e-002	0.78023079		0.99703	0.99000
P-Bromofluorobenzene	8863	32793	128320	313830	590400	1072300	LINR	-6.08e-002	1.78635179		0.99789	0.99000

FORM VI VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID: TB249 BFB Injection Date: 05/10/11

Instrument ID: GCMS-T BFB Injection Time: 1001

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	55.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	104.5
175	5.0 - 9.0% of mass 174	8.2 (7.8)1
176	95.0 - 101.0% of mass 174	102.6 (98.2)1
177	5.0 - 9.0% of mass 176	6.8 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050T10B	T1993	05/10/11	1123
02	WG91391-LCS	WG91391-1	T1994A	05/10/11	1208
03	WG91391-BLANK	WG91391-2	T1996A	05/10/11	1323
04	B200-MW02D-20110504	SE2433-4DL	T2002	05/10/11	1639
05					
06					
07					
08					
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12					
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15					
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17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-T Calibration Date: 05/10/11 Time: 1123

Lab File ID: T1993 Init. Calib. Date(s): 05/05/11 05/05/11

Init. Calib. Times: 1255 1538

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dichlorodifluoromethane	1.2300000	1.1204000	1.1204000	0.01	-8.91	20.00	AVRG	
Chloromethane	0.7150000	0.6624700	0.6624700	0.1	-7.35	20.00	AVRG	
Vinyl chloride	0.6130000	0.6120300	0.6120300	0.01	-0.16	20.00	AVRG	
Bromomethane	0.4290000	0.3767400	0.3767400	0.01	-12.18	20.00	AVRG	
Chloroethane	0.3670000	0.3652400	0.3652400	0.01	-0.48	20.00	AVRG	
Trichlorofluoromethane	1.4780000	1.9250000	1.9250000	0.01	30.24	20.00	AVRG	<-
1,1-Dichloroethene	0.6000000	0.6509900	0.6509900	0.01	8.50	20.00	AVRG	
Carbon Disulfide	51.926000	50.000000	1.6197000	0.01	3.85		LINR	
Freon-113	0.5820000	0.6566600	0.6566600	0.01	12.83	20.00	AVRG	
Methylene Chloride	0.6600000	0.6493800	0.6493800	0.01	-1.61	20.00	AVRG	
Acetone	0.2360000	0.2767800	0.2767800	0.01	17.28	20.00	AVRG	
trans-1,2-Dichloroethene	0.6940000	0.7360100	0.7360100	0.01	6.05	20.00	AVRG	
Methyl tert-butyl ether	0.7240000	0.7391100	0.7391100	0.01	2.09	20.00	AVRG	
1,1-Dichloroethane	1.1330000	1.1884000	1.1884000	0.1	4.89	20.00	AVRG	
cis-1,2-Dichloroethene	0.7260000	0.7571900	0.7571900	0.01	4.30	20.00	AVRG	
Chloroform	1.3640000	1.5088000	1.5088000	0.01	10.62	20.00	AVRG	
Carbon Tetrachloride	57.312000	50.000000	0.8871100	0.01	14.62		LINR	
1,1,1-Trichloroethane	1.2780000	1.4804000	1.4804000	0.01	15.84	20.00	AVRG	
2-Butanone	0.2250000	0.2444400	0.2444400	0.01	8.64	20.00	AVRG	
Benzene	1.5190000	1.5541000	1.5541000	0.01	2.31	20.00	AVRG	
Cyclohexane	0.7960000	0.7580700	0.7580700	0.01	-4.76	20.00	AVRG	
1,2-Dichloroethane	0.8780000	0.9873900	0.9873900	0.01	12.46	20.00	AVRG	
Trichloroethene	0.5360000	0.5451700	0.5451700	0.01	1.71	20.00	AVRG	
1,2-Dichloropropane	0.3520000	0.3560700	0.3560700	0.01	1.16	20.00	AVRG	
Bromodichloromethane	0.7360000	0.8642200	0.8642200	0.01	17.42	20.00	AVRG	
cis-1,3-dichloropropene	0.7160000	0.7854500	0.7854500	0.01	9.70	20.00	AVRG	
Toluene	1.0400000	1.0720000	1.0720000	0.01	3.08	20.00	AVRG	
4-methyl-2-pentanone	0.3360000	0.3598400	0.3598400	0.01	7.10	20.00	AVRG	
Tetrachloroethene	40.432000	50.000000	0.6086600	0.01	-19.14		2RDR	

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Instrument ID: GCMS-T Calibration Date: 05/10/11 Time: 1123

Lab File ID: T1993 Init. Calib. Date(s): 05/05/11 05/05/11

Init. Calib. Times: 1255 1538

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.6480000	0.7162900	0.7162900	0.01	10.54	20.00	AVRG	
1,1,2-Trichloroethane	0.2740000	0.2928800	0.2928800	0.01	6.89	20.00	AVRG	
Dibromochloromethane	0.7100000	0.8016000	0.8016000	0.01	12.90	20.00	AVRG	
1,2-Dibromoethane	0.4670000	0.5032700	0.5032700	0.01	7.77	20.00	AVRG	
2-Hexanone	0.2810000	0.2987400	0.2987400	0.01	6.31	20.00	AVRG	
Chlorobenzene	1.4190000	1.4252000	1.4252000	0.3	0.44	20.00	AVRG	
Ethylbenzene	0.7350000	0.7389500	0.7389500	0.01	0.54	20.00	AVRG	
Xylenes (total)	0.0000000	0.8845400	0.8845400	0.01	0.00	20.00	AVRG	<-
Styrene	1.4820000	1.4917000	1.4917000	0.01	0.65	20.00	AVRG	
Bromoform	0.4920000	0.5645000	0.5645000	0.1	14.74	20.00	AVRG	
Isopropylbenzene	3.5070000	3.2587000	3.2587000	0.01	-7.08	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.7050000	0.6909100	0.6909100	0.3	-2.00	20.00	AVRG	
1,3-Dichlorobenzene	1.9790000	1.8491000	1.8491000	0.01	-6.56	20.00	AVRG	
1,4-Dichlorobenzene	1.9230000	1.7986000	1.7986000	0.01	-6.47	20.00	AVRG	
1,2-Dichlorobenzene	1.7730000	1.6933000	1.6933000	0.01	-4.50	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	0.1420000	0.1572600	0.1572600	0.01	10.75	20.00	AVRG	
1,2,4-Trichlorobenzene	1.0370000	1.1594000	1.1594000	0.01	11.80	20.00	AVRG	
Methyl Acetate	0.4040000	0.3996300	0.3996300	0.01	-1.08	20.00	AVRG	
Methylcyclohexane	0.8780000	0.8825300	0.8825300	0.01	0.52	20.00	AVRG	
Dibromofluoromethane	0.8580000	0.7981000	0.7981000	0.01	-6.98	20.00	AVRG	
1,2-Dichloroethane-D4	0.9670000	0.9258300	0.9258300	0.01	-4.26	20.00	AVRG	
Toluene-D8	50.603000	50.000000	1.3843000	0.01	1.21		LINR	
P-Bromofluorobenzene	52.729000	50.000000	0.6243800	0.01	5.46		LINR	

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID: TB244 BFB Injection Date: 05/05/11

Instrument ID: GCMS-T BFB Injection Time: 1656

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	48.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	94.0
175	5.0 - 9.0% of mass 174	8.2 (8.7)1
176	95.0 - 101.0% of mass 174	89.5 (95.3)1
177	5.0 - 9.0% of mass 176	6.3 (7.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		IND CHECK	T1898A	05/05/11	1804
02					
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FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG91242-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID: S3730B Lab Sample ID: WG91242-2

Date Analyzed: 05/06/11 Time Analyzed: 2119

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-S

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG91242-LCS	WG91242-1	S3728B	05/06/11	2005
02	TRIP BLANK	SE2433-5	S3731	05/06/11	2154
03	B200-MW01D-20110504	SE2433-2	S3735	05/07/11	0004
04	B200-MW02D-20110504	SE2433-4	S3736	05/07/11	0036
05	B200-MW01S-20110504	SE2433-1	S3737	05/07/11	0108
06	B200-MW02S-20110504	SE2433-3	S3738	05/07/11	0141
07					
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COMMENTS:

FORM IVVOA

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG91242-2
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date:
Extract Date: 06-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 06-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client:
Lab ID: WG91242-2
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date:
Extract Date: 06-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91242

Analysis Date: 06-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		82.2	%					
Toluene-d8		83.5	%					
1,2-Dichloroethane-d4		80.5	%					
Dibromofluoromethane		79.7	%					

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Tel:(207) 874-2400 Fax:(207) 775-4029

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

LCS Recovery Report

Client:
Lab ID: WG91242-1
Client ID: LCS
Project:
SDG: JAX01

Sample Date:
Received Date: 06-MAY-11
Extract Date:
Extracted By: DJP
Extraction Method: SW846 8260B
Lab Prep Batch: WG91242

Analysis Date: 06-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dichlorodifluoromethane	112.	50.0	56.1	ug/L	29-164
Chloromethane	94.0	50.0	47.0	ug/L	59-123
Vinyl Chloride	96.0	50.0	48.0	ug/L	64-131
Bromomethane	90.2	50.0	45.1	ug/L	57-135
Chloroethane	71.4	50.0	35.7	ug/L	53-157
Trichlorofluoromethane	105.	50.0	52.4	ug/L	70-149
1,1-Dichloroethene	121.	50.0	60.7	ug/L	88-127
Carbon Disulfide	97.2	50.0	48.6	ug/L	71-129
Methylene Chloride	104.	50.0	51.9	ug/L	72-129
Acetone	99.6	50.0	49.8	ug/L	62-172
trans-1,2-Dichloroethene	104.	50.0	51.8	ug/L	78-125
Methyl tert-butyl Ether	99.9	100.	99.9	ug/L	81-125
1,1-Dichloroethane	109.	50.0	54.3	ug/L	76-130
cis-1,2-Dichloroethene	106.	50.0	53.0	ug/L	85-123
Chloroform	101.	50.0	50.4	ug/L	78-128
Carbon Tetrachloride	106.	50.0	53.2	ug/L	87-126
1,1,1-Trichloroethane	104.	50.0	51.9	ug/L	77-129
2-Butanone	106.	50.0	53.0	ug/L	71-132
Benzene	102.	50.0	50.9	ug/L	86-116
1,2-Dichloroethane	103.	50.0	51.4	ug/L	81-125
Trichloroethene	97.6	50.0	48.8	ug/L	79-121
1,2-Dichloropropane	102.	50.0	51.2	ug/L	84-118
Bromodichloromethane	104.	50.0	52.2	ug/L	85-122
cis-1,3-Dichloropropene	104.	50.0	52.0	ug/L	83-119
Toluene	100.	50.0	50.1	ug/L	84-118
4-Methyl-2-Pentanone	95.0	50.0	47.5	ug/L	83-122
Tetrachloroethene	111.	50.0	55.5	ug/L	47-155
trans-1,3-Dichloropropene	111.	50.0	55.6	ug/L	85-135
1,1,2-Trichloroethane	104.	50.0	51.9	ug/L	84-115
Dibromochloromethane	111.	50.0	55.5	ug/L	85-119
1,2-Dibromoethane	106.	50.0	53.2	ug/L	84-116
2-Hexanone	107.	50.0	53.4	ug/L	80-124
Chlorobenzene	104.	50.0	51.8	ug/L	89-113
Ethylbenzene	103.	50.0	51.5	ug/L	88-113
Styrene	106.	50.0	53.1	ug/L	88-117

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

LCS Recovery Report

Client:
Lab ID: WG91242-1
Client ID: LCS
Project:
SDG: JAX01

Sample Date:
Received Date: 06-MAY-11
Extract Date:
Extracted By: DJP
Extraction Method: SW846 8260B
Lab Prep Batch: WG91242

Analysis Date: 06-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Bromoform	107.	50.0	53.5	ug/L	86-117
Isopropylbenzene	115.	50.0	57.7	ug/L	96-136
1,1,2,2-Tetrachloroethane	101.	50.0	50.4	ug/L	79-121
1,3-Dichlorobenzene	99.2	50.0	49.6	ug/L	86-110
1,4-Dichlorobenzene	102.	50.0	50.9	ug/L	86-111
1,2-Dichlorobenzene	103.	50.0	51.4	ug/L	86-112
1,2-Dibromo-3-Chloropropane	96.8	50.0	48.4	ug/L	67-124
1,2,4-Trichlorobenzene	110.	50.0	55.2	ug/L	76-126
Freon-113	91.6	50.0	45.8	ug/L	73-126
Cyclohexane	103.	50.0	51.6	ug/L	71-133
Methyl acetate	99.2	50.0	49.6	ug/L	70-132
Methylcyclohexane	92.4	50.0	46.2	ug/L	73-125
Total Xylene	104.	150.	156.	ug/L	89-116
P-Bromofluorobenzene	83.4				56-133
Toluene-d8	86.5				65-128
1,2-Dichloroethane-d4	82.8				67-135
Dibromofluoromethane	86.1				68-128

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FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG91391-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID: T1996A Lab Sample ID: WG91391-2

Date Analyzed: 05/10/11 Time Analyzed: 1323

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-T

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG91391-LCS	WG91391-1	T1994A	05/10/11	1208
02	B200-MW02D-20110504	SE2433-4DL	T2002	05/10/11	1639
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
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26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

Report of Analytical Results

Client:
Lab ID: WG91391-2
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date:
Extract Date: 10-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91391

Analysis Date: 10-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client:
Lab ID: WG91391-2
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date:
Extract Date: 10-MAY-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG91391

Analysis Date: 10-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		110.	%					
Toluene-d8		108.	%					
1,2-Dichloroethane-d4		93.5	%					
Dibromofluoromethane		100.	%					

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LCS Recovery Report

Client:
Lab ID: WG91391-1
Client ID: LCS
Project:
SDG: JAX01

Sample Date:
Received Date: 10-MAY-11
Extract Date:
Extracted By: DJP
Extraction Method: SW846 8260B
Lab Prep Batch: WG91391

Analysis Date: 10-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dichlorodifluoromethane	97.2	50.0	48.6	ug/L	29-164
Chloromethane	92.0	50.0	46.0	ug/L	59-123
Vinyl Chloride	96.2	50.0	48.1	ug/L	64-131
Bromomethane	90.4	50.0	45.2	ug/L	57-135
Chloroethane	98.8	50.0	49.4	ug/L	53-157
Trichlorofluoromethane	116.	50.0	58.2	ug/L	70-149
1,1-Dichloroethene	111.	50.0	55.3	ug/L	88-127
Carbon Disulfide	90.8	50.0	45.4	ug/L	71-129
Methylene Chloride	95.4	50.0	47.7	ug/L	72-129
Acetone	146.	50.0	73.2	ug/L	62-172
trans-1,2-Dichloroethene	103.	50.0	51.3	ug/L	78-125
Methyl tert-butyl Ether	103.	100.	103.	ug/L	81-125
1,1-Dichloroethane	104.	50.0	52.0	ug/L	76-130
cis-1,2-Dichloroethene	100.	50.0	50.0	ug/L	85-123
Chloroform	105.	50.0	52.5	ug/L	78-128
Carbon Tetrachloride	110.	50.0	54.9	ug/L	87-126
1,1,1-Trichloroethane	111.	50.0	55.3	ug/L	77-129
2-Butanone	109.	50.0	54.4	ug/L	71-132
Benzene	99.0	50.0	49.5	ug/L	86-116
1,2-Dichloroethane	107.	50.0	53.3	ug/L	81-125
Trichloroethene	104.	50.0	52.1	ug/L	79-121
1,2-Dichloropropane	99.6	50.0	49.8	ug/L	84-118
Bromodichloromethane	110.	50.0	55.2	ug/L	85-122
cis-1,3-Dichloropropene	104.	50.0	51.9	ug/L	83-119
Toluene	99.2	50.0	49.6	ug/L	84-118
4-Methyl-2-Pentanone	104.	50.0	52.0	ug/L	83-122
Tetrachloroethene	82.4	50.0	41.2	ug/L	47-155
trans-1,3-Dichloropropene	114.	50.0	57.1	ug/L	85-135
1,1,2-Trichloroethane	104.	50.0	52.2	ug/L	84-115
Dibromochloromethane	108.	50.0	54.1	ug/L	85-119
1,2-Dibromoethane	104.	50.0	52.0	ug/L	84-116
2-Hexanone	108.	50.0	54.1	ug/L	80-124
Chlorobenzene	98.4	50.0	49.2	ug/L	89-113
Ethylbenzene	97.2	50.0	48.6	ug/L	88-113
Styrene	98.0	50.0	49.0	ug/L	88-117

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LCS Recovery Report

Client:
Lab ID: WG91391-1
Client ID: LCS
Project:
SDG: JAX01

Sample Date:
Received Date: 10-MAY-11
Extract Date:
Extracted By: DJP
Extraction Method: SW846 8260B
Lab Prep Batch: WG91391

Analysis Date: 10-MAY-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Bromoform	111.	50.0	55.3	ug/L	86-117
Isopropylbenzene	105.	50.0	52.5	ug/L	96-136
1,1,2,2-Tetrachloroethane	96.0	50.0	48.0	ug/L	79-121
1,3-Dichlorobenzene	91.6	50.0	45.8	ug/L	86-110
1,4-Dichlorobenzene	91.4	50.0	45.7	ug/L	86-111
1,2-Dichlorobenzene	92.6	50.0	46.3	ug/L	86-112
1,2-Dibromo-3-Chloropropane	112.	50.0	56.2	ug/L	67-124
1,2,4-Trichlorobenzene	113.	50.0	56.6	ug/L	76-126
Freon-113	110.	50.0	55.2	ug/L	73-126
Cyclohexane	101.	50.0	50.3	ug/L	71-133
Methyl acetate	96.8	50.0	48.4	ug/L	70-132
Methylcyclohexane	103.	50.0	51.5	ug/L	73-125
Total Xylene	95.3	150.	143.	ug/L	89-116
P-Bromofluorobenzene	100.				56-133
Toluene-d8	99.8				65-128
1,2-Dichloroethane-d4	90.8				67-135
Dibromofluoromethane	90.4				68-128

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FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 DBF#	SMC2 DCA#	SMC3 TOL#	SMC4 BFB#	TOT OUT
01	WG91242-LCS	WG91242-1	86	83	86	83	0
02	WG91242-BLANK	WG91242-2	80	80	83	82	0
03	TRIP BLANK	SE2433-5	81	80	82	79	0
04	B200-MW01D-20110504	SE2433-2	84	95	88	87	0
05	B200-MW02D-20110504	SE2433-4	86	95	83	85	0
06	B200-MW01S-20110504	SE2433-1	88	98	87	87	0
07	B200-MW02S-20110504	SE2433-3	84	86	85	86	0
08	WG91391-LCS	WG91391-1	90	91	100	100	0
09	WG91391-BLANK	WG91391-2	100	93	108	110	0
10	B200-MW02D-20110504	SE2433-4DL	102	92	106	109	0
11							
12							
13							
14							
15							
16							
17							
18							
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22							
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25							
26							
27							
28							

	QC LIMITS
SMC1 (DBF) = Dibromofluoromethane	(68-128)
SMC2 (DCA) = 1,2-Dichloroethane-D4	(67-135)
SMC3 (TOL) = Toluene-D8	(65-128)
SMC4 (BFB) = P-Bromofluorobenzene	(56-133)

Column to be used to flag recovery values

J Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID (Standard): S3725 Date Analyzed: 05/06/11

Instrument ID: GCMS-S Time Analyzed: 1305

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(PFB)		IS2(DFB)		IS3(CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		461510	10.21	765245	10.85	605224	14.41
UPPER LIMIT		923020	10.71	1530490	11.35	1210448	14.91
LOWER LIMIT		230755	9.71	382623	10.35	302612	13.91
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01		VSTD050S06C	465171	10.22	771903	10.85	618913	14.42
02	WG91242-LCS	WG91242-1	457489	10.22	781274	10.85	614473	14.41
03	WG91242-BLANK	WG91242-2	467903	10.22	757153	10.84	590869	14.40
04	TRIP BLANK	SE2433-5	446059	10.22	751285	10.84	572948	14.41
05	B200-MW01D-20110504	SE2433-2	390416	10.21	675202	10.85	546076	14.41
06	B200-MW02D-20110504	SE2433-4	399173	10.22	715951	10.85	555405	14.40
07	B200-MW01S-20110504	SE2433-1	379684	10.21	673175	10.84	527003	14.41
08	B200-MW02S-20110504	SE2433-3	434618	10.22	727839	10.85	568100	14.41
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID (Standard): S3725 Date Analyzed: 05/06/11

Instrument ID: GCMS-S Time Analyzed: 1305

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		299320	17.58				
UPPER LIMIT		598640	18.08				
LOWER LIMIT		149660	17.08				
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01		VSTD050S06C	298414	17.59			
02	WG91242-LCS	WG91242-1	304049	17.59			
03	WG91242-BLANK	WG91242-2	256519	17.59			
04	TRIP BLANK	SE2433-5	213828	17.59			
05	B200-MW01D-20110504	SE2433-2	253317	17.59			
06	B200-MW02D-20110504	SE2433-4	251387	17.59			
07	B200-MW01S-20110504	SE2433-1	259252	17.58			
08	B200-MW02S-20110504	SE2433-3	270923	17.59			
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID (Standard): T1893 Date Analyzed: 05/05/11

Instrument ID: GCMS-T Time Analyzed: 1400

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(PFB) AREA #	IS1(PFB) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
12 HOUR STD		360963	9.95	478409	10.60	412295	14.14
UPPER LIMIT		721926	10.45	956818	11.10	824590	14.64
LOWER LIMIT		180482	9.45	239205	10.10	206148	13.64
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01		VSTD050T10B	301266	9.94	401347	10.60	353803	14.12
02	WG91391-LCS	WG91391-1	321243	9.94	430783	10.59	378160	14.13
03	WG91391-BLANK	WG91391-2	313102	9.93	414151	10.60	407260	14.12
04	B200-MW02D-20110504	SE2433-4DL	317237	9.94	435208	10.59	409294	14.13
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE,CTO JM19 SDG No.: JAX01

Lab File ID (Standard): T1893 Date Analyzed: 05/05/11

Instrument ID: GCMS-T Time Analyzed: 1400

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4(DCB)					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		262830	17.31				
UPPER LIMIT		525660	17.81				
LOWER LIMIT		131415	16.81				
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01		VSTD050T10B	244738	17.29				
02	WG91391-LCS	WG91391-1	260664	17.30				
03	WG91391-BLANK	WG91391-2	243042	17.29				
04	B200-MW02D-20110504	SE2433-4DL	244387	17.29				
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID: UD558 DFTPP Injection Date: 04/27/11

Instrument ID: GCMS-U DFTPP Injection Time: 1015

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.6
68	Less than 2.0% of mass 69	0.3 (0.7)1
69	Less than 100.0% of mass 198	40.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	22.5
365	1.0 - 100.0% of mass 198	3.4
441	0.0 - 100.0% of mass 443	13.8 (83.4)2
442	40.0 - 100.0% of mass 198	86.4
443	17.0 - 23.0% of mass 442	16.5 (19.2)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0427	U5475	04/27/11	1035
02		SSTD010U0427	U5476	04/27/11	1120
03		SSTD025U0427	U5477	04/27/11	1204
04		SSTD075U0427	U5478	04/27/11	1248
05		SSTD100U0427	U5479	04/27/11	1331
06		SSTD125U0427	U5480	04/27/11	1415
07		8270 IND CHECK	U5481	04/27/11	1458
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FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GCMS-U Calibration Date(s): 04/27/11 04/27/11

Column: ZB5-MS ID: 0.25 (mm) Calibration Time(s): 1035 1415

LAB FILE ID: RF10: U5476 RF25: U5477 RF50: U5475
RF75: U5478 RF100: U5479 RF125: U5480

								COEFFICENTS			%RSD	MAX %RSD
COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	A0	A1	A2	OR R^2	OR R^2
Phenol	1.484	1.312	1.381	1.453	1.288	1.208	AVRG		1.35438364		7.732	30.000
Bis(2-Chloroethyl)ether	1.108	1.057	1.004	0.972	0.858	0.825	AVRG		0.97065161		11.422	15.000
2-Chlorophenol	1.291	1.164	1.144	1.172	1.015	0.924	AVRG		1.11852093		11.579	15.000
2,2'-Oxybis(1-chloropropa	1.793	1.743	1.616	1.650	1.485	1.414	AVRG		1.61685368		9.027	15.000
2-Methylphenol	1.184	1.189	1.052	1.127	1.067	1.040	AVRG		1.10987539		5.990	15.000
Hexachloroethane	53415	123060	214160	345310	412090	475730	2ORDR	4.039e-002	0.83529858	1.97670856	0.99122	0.99000
N-Nitroso-di-n-propylamin	0.833	0.798	0.661	0.648	0.628	0.626	AVRG		0.69892775		13.124	15.000
3&4-Methylphenol	1.152	1.241	1.102	1.168	1.035	0.991	AVRG		1.11485226		8.227	15.000
Nitrobenzene	134070	281550	490840	886350	1176900	1409800	2ORDR	-2.05e-002	2.85840192	0.97760420	0.99774	0.99000
Isophorone	0.616	0.575	0.534	0.558	0.524	0.507	AVRG		0.55236783		7.161	15.000
2-Nitrophenol	0.179	0.184	0.170	0.181	0.168	0.161	AVRG		0.17391758		5.076	30.000
2,4-Dimethylphenol	0.330	0.313	0.290	0.296	0.271	0.250	AVRG		0.29167846		9.817	15.000
Bis(2-Chloroethoxy)methan	0.388	0.357	0.325	0.330	0.293	0.294	AVRG		0.33121249		11.052	15.000
2,4-Dichlorophenol	0.264	0.268	0.252	0.267	0.208	0.202	AVRG		0.24355783		12.460	30.000
4-Chloroaniline	123540	299360	479480	848260	1053100	1271500	2ORDR	-1.01e-002	2.52135079	2.05716025	0.99385	0.99000
Hexachlorobutadiene	0.174	0.166	0.147	0.146	0.128	0.122	AVRG		0.14686796		13.790	30.000
4-Chloro-3-Methylphenol	0.255	0.263	0.240	0.256	0.236	0.221	AVRG		0.24499502		6.405	30.000
2,4,6-Trichlorophenol	0.344	0.327	0.313	0.315	0.285	0.267	AVRG		0.30859478		9.044	30.000
2,4,5-Trichlorophenol	0.357	0.352	0.330	0.341	0.320	0.308	AVRG		0.33453869		5.685	15.000
2-Chloronaphthalene	293200	676760	1122500	1813000	2680800	2798800	2ORDR	3.828e-003	0.52810720	0.11760764	0.99127	0.99000
2-Nitroaniline	0.288	0.279	0.275	0.282	0.266	0.251	AVRG		0.27363464		4.854	15.000
Dimethyl Phthalate	1.209	1.149	1.048	1.048	0.919	0.874	AVRG		1.04105206		12.348	15.000
2,6-Dinitrotoluene	0.280	0.269	0.244	0.252	0.245	0.231	AVRG		0.25351844		6.988	15.000
3-Nitroaniline	0.272	0.272	0.251	0.275	0.256	0.257	AVRG		0.26395817		3.999	15.000
2,4-Dinitrophenol	11651	49064	104490	205680	265310	307110	2ORDR	0.10996776	5.53134059	7.64774547	0.99128	0.99000
Dibenzofuran	255460	623160	999640	1762100	2306500	2668100	2ORDR	1.102e-002	0.57135350	0.13855625	0.99816	0.99000
4-Nitrophenol	0.114	0.148	0.183	0.204	0.164	0.163	AVRG		0.16271513		18.713	15.000 <-
2,4-Dinitrotoluene	0.331	0.332	0.311	0.331	0.314	0.294	AVRG		0.31856524		4.728	15.000
Diethylphthalate	206000	513680	838810	1386500	1740200	1951300	2ORDR	5.069e-002	0.41329339	0.40634265	0.99562	0.99000
4-Chlorophenyl-phenylethe	91114	226390	366190	650650	849450	995230	2ORDR	8.545e-003	1.63841760	0.91340393	0.99799	0.99000
4-Nitroaniline	0.235	0.230	0.237	0.255	0.236	0.213	AVRG		0.23435571		5.801	15.000
4,6-Dinitro-2-Methylpheno	0.094	0.117	0.118	0.125	0.118	0.107	AVRG		0.11329597		9.695	15.000
N-Nitrosodiphenylamine	167480	415760	661890	1179000	1525600	1711100	2ORDR	2.046e-002	1.20036822	0.83917223	0.99803	0.99000
4-Bromophenyl-phenylether	0.224	0.215	0.184	0.179	0.163	0.156	AVRG		0.18684612		14.712	15.000
Hexachlorobenzene	0.253	0.232	0.199	0.197	0.186	0.176	AVRG		0.20717642		14.238	15.000
Pentachlorophenol	0.097	0.119	0.114	0.125	0.123	0.115	AVRG		0.11550514		8.596	30.000
Carbazole	0.958	0.902	0.820	0.786	0.711	0.661	AVRG		0.80626243		13.905	15.000
Di-n-butylphthalate	334630	841960	1370800	2403200	3106400	3467800	2ORDR	2.813e-002	0.55706561	0.21567789	0.99808	0.99000
Butylbenzylphthalate	0.613	0.612	0.574	0.594	0.559	0.545	AVRG		0.58274880		4.851	15.000
3,3'-Dichlorobenzidine	0.308	0.293	0.298	0.312	0.268	0.268	AVRG		0.29127108		6.544	15.000
bis(2-Ethylhexyl)phthalat	0.818	0.820	0.784	0.798	0.754	0.728	AVRG		0.78390338		4.682	15.000
Di-n-octylphthalate	1.422	1.460	1.326	1.406	1.319	1.240	AVRG		1.36207127		5.982	30.000
1,1'-Biphenyl	231140	510900	761290	1187600	1478200	1632000	2ORDR	4.615e-002	0.19869774	0.73747112	0.99628	0.99000
Caprolactam	0.087	0.094	0.091	0.101	0.099	0.097	AVRG		9.491e-002		5.644	15.000

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GCMS-U Calibration Date(s): 04/27/11 04/27/11

Column: ZB5-MS ID: 0.25 (mm) Calibration Time(s): 1035 1415

LAB FILE ID: RF10: U5476 RF25: U5477 RF50: U5475
RF75: U5478 RF100: U5479 RF125: U5480

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	COEFFICENTS A1	COEFFICENTS A2	%RSD OR R^2	MAX %RSD OR R^2	
Benzaldehyde	0.915	0.758	0.667	0.586	0.447	0.446	AVRG		0.63658175		28.902	15.000	<-
Acetophenone	0.456	0.426	0.389	0.409	0.372	0.362	AVRG		0.40236655		8.784	15.000	
Atrazine	0.182	0.163	0.127	0.115	0.091	0.075	AVRG		0.12546193		32.554	15.000	<-
Hexachlorocyclopentadiene	0.299	0.305	0.286	0.293	0.266	0.256	AVRG		0.28412029		6.785	15.000	
2-Fluorophenol	1.183	1.380	1.146	1.236	1.134	1.087	AVRG		1.19422352		8.678	15.000	
Phenol-D6	1.504	1.347	1.343	1.368	1.234	1.184	AVRG		1.32982272		8.414	15.000	
Nitrobenzene-D5	0.331	0.303	0.289	0.294	0.265	0.258	AVRG		0.28989269		9.150	15.000	
2-Fluorobiphenyl	1.256	1.170	1.037	1.000	0.898	0.857	AVRG		1.03656612		14.865	15.000	
2,4,6-Tribromophenol	0.173	0.182	0.166	0.174	0.151	0.159	AVRG		0.16765467		6.776	15.000	
Terphenyl-D14	0.738	0.757	0.650	0.696	0.649	0.650	AVRG		0.69016347		7.003	15.000	

FORM VI SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID: UD568 DFTPP Injection Date: 05/11/11

Instrument ID: GCMS-U DFTPP Injection Time: 0808

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	37.0
68	Less than 2.0% of mass 69	0.4 (1.1)1
69	Less than 100.0% of mass 198	38.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	22.4
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	12.8 (82.5)2
442	40.0 - 100.0% of mass 198	79.0
443	17.0 - 23.0% of mass 442	15.5 (19.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0511	U5652	05/11/11	0826
02	WG91133-BLANK	WG91133-1	U5656	05/11/11	1123
03	WG91133-LCS	WG91133-2	U5657	05/11/11	1207
04	WG91133-LCSD	WG91133-3	U5658	05/11/11	1251
05	B200-MW01S-20110504	SE2433-1	U5659	05/11/11	1335
06	B200-MW01D-20110504	SE2433-2	U5660	05/11/11	1419
07	B200-MW02S-20110504	SE2433-3	U5661	05/11/11	1503
08	B200-MW02D-20110504	SE2433-4	U5662	05/11/11	1547
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FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GCMS-U Calibration Date: 05/11/11 Time: 0826

Lab File ID: U5652 Init. Calib. Date(s): 04/27/11 04/27/11

Init. Calib. Times: 1035 1415

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Phenol	1.3540000	1.4249000	1.4249000	0.01	5.24	20.01	AVRG
Bis(2-Chloroethyl)ether	0.9710000	1.0205000	1.0205000	0.01	5.10	20.00	AVRG
2-Chlorophenol	1.1180000	1.1825000	1.1825000	0.01	5.77	20.00	AVRG
2,2'-Oxybis(1-chloropropane)	1.6170000	1.7770000	1.7770000	0.01	9.89	20.00	AVRG
2-Methylphenol	1.1100000	1.1238000	1.1238000	0.01	1.24	20.00	AVRG
Hexachloroethane	46.978000	50.000000	0.4600600	0.01	-6.04	20.00	2RDR
N-Nitroso-di-n-propylamine	0.6990000	0.6706200	0.6706200	0.05	-4.06	20.00	AVRG
3&4-Methylphenol	1.1150000	1.1777000	1.1777000	0.01	5.62	20.00	AVRG
Nitrobenzene	46.962000	50.000000	0.2967000	0.01	-6.08	20.00	2RDR
Isophorone	0.5520000	0.5735500	0.5735500	0.01	3.90	20.00	AVRG
2-Nitrophenol	0.1740000	0.1859400	0.1859400	0.01	6.86	20.01	AVRG
2,4-Dimethylphenol	0.2920000	0.2929400	0.2929400	0.01	0.32	20.00	AVRG
Bis(2-Chloroethoxy)methane	0.3310000	0.3453700	0.3453700	0.01	4.34	20.00	AVRG
2,4-Dichlorophenol	0.2440000	0.2740800	0.2740800	0.01	12.33	20.01	AVRG
4-Chloroaniline	52.841000	50.000000	0.3187400	0.01	5.68	20.00	2RDR
Hexachlorobutadiene	0.1470000	0.1406000	0.1406000	0.01	-4.35	20.01	AVRG
4-Chloro-3-Methylphenol	0.2450000	0.2177500	0.2177500	0.01	-11.12	20.01	AVRG
2,4,6-Trichlorophenol	0.3080000	0.3266600	0.3266600	0.01	6.06	20.01	AVRG
2,4,5-Trichlorophenol	0.3350000	0.3148000	0.3148000	0.01	-6.03	20.00	AVRG
2-Chloronaphthalene	46.751000	50.000000	1.2967000	0.01	-6.50	20.00	2RDR
2-Nitroaniline	0.2740000	0.2833500	0.2833500	0.01	3.41	20.00	AVRG
Dimethyl Phthalate	1.0410000	1.0731000	1.0731000	0.01	3.08	20.00	AVRG
2,6-Dinitrotoluene	0.2540000	0.2551200	0.2551200	0.01	0.44	20.00	AVRG
3-Nitroaniline	0.2640000	0.2471700	0.2471700	0.01	-6.38	20.00	AVRG
2,4-Dinitrophenol	51.856000	50.000000	0.1384600	0.05	3.71	20.00	2RDR
Dibenzofuran	47.328000	50.000000	1.2027000	0.01	-5.34	20.00	2RDR
4-Nitrophenol	0.1630000	0.1789600	0.1789600	0.05	9.79	20.00	AVRG
2,4-Dinitrotoluene	0.3190000	0.3151500	0.3151500	0.01	-1.21	20.00	AVRG
Diethylphthalate	44.970000	50.000000	0.9556600	0.01	-10.06	20.00	2RDR

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GCMS-U Calibration Date: 05/11/11 Time: 0826

Lab File ID: U5652 Init. Calib. Date(s): 04/27/11 04/27/11

Init. Calib. Times: 1035 1415

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
4-Chlorophenyl-phenylether	47.247000	50.000000	0.4385400	0.01	-5.51	20.00	2RDR	
4-Nitroaniline	0.2340000	0.2388500	0.2388500	0.01	2.07	20.00	AVRG	
4,6-Dinitro-2-Methylphenol	0.1130000	0.1314100	0.1314100	0.01	16.29	20.00	AVRG	
N-Nitrosodiphenylamine	51.741000	50.000000	0.5672600	0.01	3.48	20.01	2RDR	
4-Bromophenyl-phenylether	0.1870000	0.1885100	0.1885100	0.01	0.81	20.00	AVRG	
Hexachlorobenzene	0.2070000	0.2002600	0.2002600	0.01	-3.26	20.00	AVRG	
Pentachlorophenol	0.1160000	0.1354000	0.1354000	0.01	16.72	20.01	AVRG	
Carbazole	0.8060000	0.8338100	0.8338100	0.01	3.45	20.00	AVRG	
Di-n-butylphthalate	49.298000	50.000000	1.1212000	0.01	-1.40	20.00	2RDR	
Butylbenzylphthalate	0.5830000	0.6308900	0.6308900	0.01	8.21	20.00	AVRG	
3,3'-Dichlorobenzidine	0.2910000	0.2663700	0.2663700	0.01	-8.46	20.00	AVRG	
bis(2-Ethylhexyl)phthalate	0.7840000	0.8717600	0.8717600	0.01	11.19	20.00	AVRG	
Di-n-octylphthalate	1.3620000	1.5517000	1.5517000	0.01	13.93	20.01	AVRG	
1,1'-Biphenyl	43.356000	50.000000	0.8473200	0.01	-13.29	20.00	2RDR	
Caprolactam	9.5e-002	9.96e-002	9.96e-002	0.01	4.84	20.00	AVRG	
Benzaldehyde	0.6360000	0.1308100	0.1308100	0.01	-79.43	20.00	AVRG	<-
Acetophenone	0.4020000	0.4089500	0.4089500	0.01	1.73	20.00	AVRG	
Atrazine	0.1260000	0.1203100	0.1203100	0.01	-4.52	20.00	AVRG	
Hexachlorocyclopentadiene	0.2840000	0.2860400	0.2860400	0.05	0.72	20.00	AVRG	
2-Fluorophenol	1.1940000	1.2189000	1.2189000	0.01	2.08	20.00	AVRG	
Phenol-D6	1.3300000	1.3224000	1.3224000	0.01	-0.57	20.00	AVRG	
Nitrobenzene-D5	0.2900000	0.3061900	0.3061900	0.01	5.58	20.00	AVRG	
2-Fluorobiphenyl	1.0360000	0.9871100	0.9871100	0.01	-4.72	20.00	AVRG	
2,4,6-Tribromophenol	0.1680000	0.1615600	0.1615600	0.01	-3.83	20.00	AVRG	
Terphenyl-D14	0.6900000	0.7214700	0.7214700	0.01	4.56	20.00	AVRG	

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG91133-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID: U5656 Lab Sample ID: WG91133-1

Instrument ID: GCMS-U Date Extracted: 05/05/11

Matrix: (soil/water) WATER Date Analyzed: 05/11/11

Level:(low/med) LOW Time Analyzed: 1123

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG91133-LCS	WG91133-2	U5657	05/11/11	1207
02	WG91133-LCSD	WG91133-3	U5658	05/11/11	1251
03	B200-MW01S-20110504	SE2433-1	U5659	05/11/11	1335
04	B200-MW01D-20110504	SE2433-2	U5660	05/11/11	1419
05	B200-MW02S-20110504	SE2433-3	U5661	05/11/11	1503
06	B200-MW02D-20110504	SE2433-4	U5662	05/11/11	1547
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COMMENTS:

FORM IVSV

Report of Analytical Results

Client:
Lab ID: WG91133-1
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	1.8	ug/L	1	10	10.	1.8	7.5
Bis(2-Chloroethyl) Ether	U	2.0	ug/L	1	10	10.	2.0	7.5
2-Chlorophenol	U	3.2	ug/L	1	10	10.	3.2	7.5
2,2'-Oxybis(1-Chloropropane)	U	2.1	ug/L	1	10	10.	2.1	7.5
2-Methylphenol	U	3.8	ug/L	1	10	10.	3.8	7.5
Hexachloroethane	U	2.3	ug/L	1	10	10.	2.3	7.5
N-Nitroso-Di-N-Propylamine	U	2.0	ug/L	1	10	10.	2.0	7.5
3&4-Methylphenol	U	5.6	ug/L	1	10	10.	5.6	7.5
Nitrobenzene	U	3.1	ug/L	1	10	10.	3.1	7.5
Isophorone	U	1.7	ug/L	1	10	10.	1.7	7.5
2-Nitrophenol	U	2.7	ug/L	1	10	10.	2.7	7.5
2,4-Dimethylphenol	U	4.4	ug/L	1	10	10.	4.4	7.5
Bis(2-Chloroethoxy) Methane	U	2.1	ug/L	1	10	10.	2.1	7.5
2,4-Dichlorophenol	U	3.0	ug/L	1	10	10.	3.0	7.5
4-Chloroaniline	U	1.9	ug/L	1	10	10.	1.9	7.5
Hexachlorobutadiene	U	1.8	ug/L	1	10	10.	1.8	7.5
4-Chloro-3-Methylphenol	U	3.6	ug/L	1	10	10.	3.6	7.5
2,4,6-Trichlorophenol	U	2.7	ug/L	1	10	10.	2.7	7.5
2,4,5-Trichlorophenol	U	3.6	ug/L	1	25	25.	3.6	19.
2-Chloronaphthalene	U	2.9	ug/L	1	10	10.	2.9	7.5
2-Nitroaniline	U	1.8	ug/L	1	25	25.	1.8	19.
Dimethyl Phthalate	U	2.0	ug/L	1	10	10.	2.0	7.5
2,6-Dinitrotoluene	U	2.0	ug/L	1	10	10.	2.0	7.5
3-Nitroaniline	U	1.5	ug/L	1	25	25.	1.5	19.
2,4-Dinitrophenol	U	1.0	ug/L	1	25	25.	1.0	19.
Dibenzofuran	U	1.6	ug/L	1	10	10.	1.6	7.5
4-Nitrophenol	U	1.8	ug/L	1	25	25.	1.8	19.
2,4-Dinitrotoluene	U	2.2	ug/L	1	10	10.	2.2	7.5
Diethylphthalate	U	2.0	ug/L	1	10	10.	2.0	7.5
4-Chlorophenyl-Phenylether	U	2.2	ug/L	1	10	10.	2.2	7.5
4-Nitroaniline	U	1.6	ug/L	1	25	25.	1.6	19.
4,6-Dinitro-2-Methylphenol	U	2.0	ug/L	1	25	25.	2.0	19.
N-Nitrosodiphenylamine	U	3.7	ug/L	1	10	10.	3.7	7.5
4-Bromophenyl-Phenylether	U	1.9	ug/L	1	10	10.	1.9	7.5

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Report of Analytical Results

Client:
Lab ID: WG91133-1
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA
Report Date: 12-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Hexachlorobenzene	U	2.1	ug/L	1	10	10.	2.1	7.5
Pentachlorophenol	U	2.3	ug/L	1	25	25.	2.3	19.
Carbazole	U	2.1	ug/L	1	10	10.	2.1	7.5
Di-N-Butylphthalate	U	2.5	ug/L	1	10	10.	2.5	7.5
Butylbenzylphthalate	U	1.9	ug/L	1	10	10.	1.9	7.5
3,3'-Dichlorobenzidine	U	1.1	ug/L	1	10	10.	1.1	19.
Bis(2-Ethylhexyl) Phthalate	U	1.7	ug/L	1	10	10.	1.7	7.5
Di-N-Octylphthalate	U	1.8	ug/L	1	10	10.	1.8	7.5
1,1'-Biphenyl	U	2.7	ug/L	1	10	10.	2.7	7.5
Caprolactam	U	0.40	ug/L	1	10	10.	0.40	7.5
Benzaldehyde	U	1.0	ug/L	1	10	10.	1.0	7.5
Acetophenone	U	3.9	ug/L	1	10	10.	3.9	7.5
Atrazine	U	3.3	ug/L	1	10	10.	3.3	7.5
Hexachlorocyclopentadiene	U	1.2	ug/L	1	10	10.	1.2	7.5
2-Fluorophenol		40.8	%					
Phenol-D6		23.0	%					
Nitrobenzene-d5		59.9	%					
2-Fluorobiphenyl		63.9	%					
2,4,6-Tribromophenol		71.5	%					
Terphenyl-d14		80.5	%					

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG91133-2
LCSD ID: WG91133-3
Project:
SDG: JAX01
Report Date: 12-MAY-11

Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Phenol	100.	28.6	28.6	33.5	33.5	ug/L	16	20	10-78
Bis(2-Chloroethyl) Ether	50.0	37.3	74.6	38.8	77.6	ug/L	4	20	45-95
2-Chlorophenol	100.	66.0	66.0	68.5	68.5	ug/L	4	20	44-91
2,2'-Oxybis(1-Chloropropane)	50.0	37.0	74.0	37.8	75.6	ug/L	2	20	42-100
2-Methylphenol	100.	56.1	56.1	62.4	62.4	ug/L	11	20	37-87
Hexachloroethane	50.0	26.7	53.4	27.0	54.0	ug/L	1	20	31-90
N-Nitroso-Di-N-Propylamine	50.0	36.6	73.2	38.4	76.8	ug/L	5	20	41-97
3&4-Methylphenol	100.	54.5	54.5	61.3	61.3	ug/L	12	20	28-85
Nitrobenzene	50.0	33.3	66.6	33.8	67.6	ug/L	1	20	48-95
Isophorone	50.0	32.9	65.8	35.7	71.4	ug/L	8	20	53-93
2-Nitrophenol	100.	68.9	68.9	71.9	71.9	ug/L	4	20	48-101
2,4-Dimethylphenol	100.	59.8	59.8	67.1	67.1	ug/L	12	20	51-87
Bis(2-Chloroethoxy) Methane	50.0	37.9	75.8	40.3	80.6	ug/L	6	20	40-98
2,4-Dichlorophenol	100.	75.6	75.6	80.3	80.3	ug/L	6	20	47-106
4-Chloroaniline	50.0	41.0	82.0	44.5	89.0	ug/L	8	20	34-100
Hexachlorobutadiene	50.0	30.7	61.4	31.1	62.2	ug/L	1	20	34-86
4-Chloro-3-Methylphenol	100.	76.2	76.2	82.7	82.7	ug/L	8	20	63-101
2,4,6-Trichlorophenol	100.	80.5	80.5	84.6	84.6	ug/L	5	20	57-109
2,4,5-Trichlorophenol	100.	88.2	88.2	88.9	88.9	ug/L	1	20	53-136
2-Chloronaphthalene	50.0	22.2	44.4	23.0	46.0	ug/L	4	20	37-76
2-Nitroaniline	50.0	48.6	97.2	49.7	99.4	ug/L	2	20	56-108
Dimethyl Phthalate	50.0	37.9	75.8	39.1	78.2	ug/L	3	20	10-111
2,6-Dinitrotoluene	50.0	48.0	96.0	47.5	95.0	ug/L	1	20	35-110
3-Nitroaniline	50.0	37.3	74.6	36.4	72.8	ug/L	2	20	46-97
2,4-Dinitrophenol	100.	126.	126.	124.	124.	ug/L	2	20	12-143
Dibenzofuran	50.0	43.1	86.2	44.1	88.2	ug/L	2	20	62-104
4-Nitrophenol	100.	16.3	16.3	19.1	19.1	ug/L	16	20	10-114
2,4-Dinitrotoluene	50.0	49.4	98.8	48.6	97.2	ug/L	2	20	66-123
Diethylphthalate	50.0	41.0	82.0	40.3	80.6	ug/L	2	20	58-101
4-Chlorophenyl-Phenylether	50.0	43.3	86.6	43.9	87.8	ug/L	1	20	65-100
4-Nitroaniline	50.0	44.7	89.4	43.8	87.6	ug/L	2	20	52-106
4,6-Dinitro-2-Methylphenol	100.	106.	106.	109.	109.	ug/L	3	20	52-129
N-Nitrosodiphenylamine	50.0	37.2	74.4	37.4	74.8	ug/L	0	20	52-96
4-Bromophenyl-Phenylether	50.0	46.9	93.8	47.9	95.8	ug/L	2	20	56-106
Hexachlorobenzene	50.0	46.4	92.8	47.1	94.2	ug/L	1	20	51-112

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ANALYTICAL SERVICES

Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG91133-2
LCSD ID: WG91133-3
Project:
SDG: JAX01
Report Date: 12-MAY-11

Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91133

Analysis Date: 11-MAY-11
Analyst: WAS
Analysis Method: SW846 8270C
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Pentachlorophenol	100.	106.	106.	108.	108.	ug/L	2	20	41-134
Carbazole	50.0	52.0	104.	53.2	106.	ug/L	2	20	57-125
Di-N-Butylphthalate	50.0	47.0	94.0	48.4	96.8	ug/L	3	20	68-114
Butylbenzylphthalate	50.0	53.0	106.	52.2	104.	ug/L	2	20	56-129
3,3'-Dichlorobenzidine	50.0	33.4	66.8	34.6	69.2	ug/L	4	20	36-87
Bis(2-Ethylhexyl) Phthalate	50.0	54.4	109.	53.6	107.	ug/L	1	20	51-155
Di-N-Octylphthalate	50.0	60.8	122.	59.0	118.	ug/L	3	20	33-184
1,1'-Biphenyl	50.0	45.3	90.6	48.2	96.4	ug/L	6	20	51-105
Caprolactam	50.0	5.79	11.6	6.21	12.4	ug/L	7	20	10-86
Benzaldehyde	50.0	21.3	42.6	28.8	57.6	ug/L	30*	20	10-189
Acetophenone	50.0	38.8	77.6	39.9	79.8	ug/L	3	20	49-102
Atrazine	50.0	J78.3	157.	76.1	152.	ug/L	3	20	83-153
Hexachlorocyclopentadiene	50.0	23.7	47.4	24.3	48.6	ug/L	2	20	23-70
2-Fluorophenol			38.0		42.9				10-80
Phenol-D6			24.5		28.5				10-90
Nitrobenzene-d5			63.5		66.0				41-91
2-Fluorobiphenyl			64.2		67.0				43-90
2,4,6-Tribromophenol			84.0		85.5				37-112
Terphenyl-d14			99.5		95.6				36-156

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FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 2FP#	S2 PHL#	S3 NBZ#	S4 FBP#	S5 TBP#	S6 TPH#	S7 #	S8 #	TOT OUT
01	WG91133-BLANK	WG91133-1	41	23	60	64	71	80			0
02	WG91133-LCS	WG91133-2	38	24	64	64	84	100			0
03	WG91133-LCSD	WG91133-3	43	28	66	67	85	96			0
04	B200-MW01S-20110504	SE2433-1	38	29	53	48	72	80			0
05	B200-MW01D-20110504	SE2433-2	32	22	57	61	69	68			0
06	B200-MW02S-20110504	SE2433-3	32	21	50	51	53	41			0
07	B200-MW02D-20110504	SE2433-4	32	23	59	65	81	75			0
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

	QC LIMITS
S1 (2FP) = 2-Fluorophenol	(10- 80)
S2 (PHL) = Phenol-D6	(10- 90)
S3 (NBZ) = Nitrobenzene-D5	(41- 91)
S4 (FBP) = 2-Fluorobiphenyl	(43- 90)
S5 (TBP) = 2,4,6-Tribromophenol	(37-112)
S6 (TPH) = Terphenyl-D14	(36-156)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID (Standard): U5475 Date Analyzed: 04/27/11

Instrument ID: GCMS-U Time Analyzed: 1035

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD		363149	8.92	1317190	12.34	660866	16.76
UPPER LIMIT		726298	9.42	2634380	12.84	1321732	17.26
LOWER LIMIT		181575	8.42	658595	11.84	330433	16.26
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01		SSTD050U0511	531301	8.84	1870014	12.26	937333	16.70
02	WG91133-BLANK	WG91133-1	506261	8.85	1896574	12.26	933043	16.69
03	WG91133-LCS	WG91133-2	505394	8.84	1824494	12.27	906532	16.70
04	WG91133-LCSD	WG91133-3	479610	8.84	1727318	12.26	875388	16.69
05	B200-MW01S-20110504	SE2433-1	512011	8.85	1891959	12.26	970544	16.70
06	B200-MW01D-20110504	SE2433-2	551219	8.85	2092897	12.26	1007896	16.69
07	B200-MW02S-20110504	SE2433-3	555326	8.85	2079923	12.27	971142	16.70
08	B200-MW02D-20110504	SE2433-4	529777	8.85	1975822	12.26	975227	16.69
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID (Standard): U5475 Date Analyzed: 04/27/11

Instrument ID: GCMS-U Time Analyzed: 1035

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
12 HOUR STD		1002323		19.89		801452		25.22		765956		27.85	
UPPER LIMIT		2004646		20.39		1602904		25.72		1531912		28.35	
LOWER LIMIT		501162		19.39		400726		24.72		382978		27.35	
	CLIENT SAMPLE ID	LAB SAMPLE ID											
01		SSTD050U0511		1361735	19.83		957400	25.15		776580		27.78	
02	WG91133-BLANK	WG91133-1		1403625	19.82		1090318	25.15		841070		27.79	
03	WG91133-LCS	WG91133-2		1366944	19.83		936806	25.15		686803		27.79	
04	WG91133-LCSD	WG91133-3		1293970	19.83		956425	25.15		716706		27.79	
05	B200-MW01S-20110504	SE2433-1		1340781	19.84		803275	25.15		572087		27.79	
06	B200-MW01D-20110504	SE2433-2		1465315	19.82		1241266	25.15		1019820		27.79	
07	B200-MW02S-20110504	SE2433-3		1345190	19.82		1001601	25.15		661850		27.79	
08	B200-MW02D-20110504	SE2433-4		1422679	19.82		1193380	25.15		878108		27.79	
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID: ND032 DFTPP Injection Date: 05/10/11

Instrument ID: GCMS-N DFTPP Injection Time: 0843

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.7
68	Less than 2.0% of mass 69	0.5 (1.4)1
69	Less than 100.0% of mass 198	38.5
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	53.5
197	Less than 1.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.0
365	1.0 - 100.0% of mass 198	2.5
441	0.0 - 100.0% of mass 443	11.3 (77.5)2
442	40.0 - 100.0% of mass 198	72.6
443	17.0 - 23.0% of mass 442	14.5 (20.0)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00N0510	N0429	05/10/11	0902
02		SSTD8.00N0510	N0430	05/10/11	0948
03		SSTD5.00N0510	N0431	05/10/11	1029
04		SSTD2.00N0510	N0432	05/10/11	1111
05		SSTD0.50N0510	N0434	05/10/11	1233
06		SSTD0.20N0510	N0435	05/10/11	1314
07		SIM IND CHECK	N0436	05/10/11	1355
08	WG91135-BLANK	WG91135-1	N0437	05/10/11	1437
09	WG91135-LCS	WG91135-2	N0438	05/10/11	1518
10	WG91135-LCSD	WG91135-3	N0439	05/10/11	1559
11	B200-MW01D-20110504	SE2433-2	N0440	05/10/11	1641
12	B200-MW02S-20110504	SE2433-3	N0441	05/10/11	1722
13	B200-MW02D-20110504	SE2433-4	N0442	05/10/11	1803
14	B200-MW01S-20110504	SE2433-1	N0444	05/10/11	1926
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GCMS-N Calibration Date(s): 05/10/11 05/10/11

Column: ZB5-MS ID: 0.25 (mm) Calibration Time(s): 0902 1314

LAB FILE ID: RF0.2: N0435 RF0.5: N0434 RF1: N0429
RF2: N0432 RF5: N0431 RF8: N0430

								COEFFICENTS			%RSD	MAX %RSD
COMPOUND	RF0.2	RF0.5	RF1	RF2	RF5	RF8	CURVE	A0	A1	A2	OR R^2	OR R^2
1-Methylnaphthalene	31259	69569	158380	298900	689540	1037300	2ORDR	-3.99e-002	1.34032951	0.14024290	0.99996	0.99000
Naphthalene	1.029	1.070	1.055	1.000	0.847	0.755	AVRG		0.95941967		13.348	15.000
2-Methylnaphthalene	34256	117620	230730	358700	757390	1130400	2ORDR	-0.1162450	0.99831570	0.16671703	0.99830	0.99000
Acenaphthylene	1.809	2.050	2.037	1.932	1.849	1.723	AVRG		1.89988088		6.853	15.000
Acenaphthene	1.242	1.362	1.339	1.267	1.201	1.135	AVRG		1.26087231		7.137	15.000
Fluorene	1.378	1.512	1.449	1.400	1.279	1.212	AVRG		1.37182442		8.015	15.000
Phenanthrene	1.160	1.286	1.313	1.236	1.175	1.101	AVRG		1.21190599		6.681	15.000
Anthracene	1.254	1.287	1.338	1.278	1.228	1.153	AVRG		1.25626475		4.975	15.000
Fluoranthene	1.051	1.125	1.230	1.113	1.112	1.042	AVRG		1.11246989		6.045	15.000
Pyrene	1.929	2.201	1.938	2.062	1.666	1.640	AVRG		1.90611671		11.527	15.000
Benzo(a)anthracene	8714	19106	91081	172090	513610	847690	LINR	0.15302128	0.92581406		0.99920	0.99000
Chrysene	28900	68274	165010	287010	673190	972420	2ORDR	-3.86e-002	0.52617324	2.394e-002	0.99969	0.99000
Benzo(b)fluoranthene	5813	21468	75752	146530	448120	680030	LINR	1.292e-002	0.80661318		0.99803	0.99000
Benzo(k)fluoranthene	17065	46806	132080	207900	560200	873600	LINR	-0.2545493	0.64995991		0.99788	0.99000
Benzo(a)pyrene	4668	16643	71926	123120	400510	661260	LINR	0.11795186	0.84247602		0.99952	0.99000
Indeno(1,2,3-cd)pyrene	0.666	0.850	0.891	0.917	0.981	0.822	AVRG		0.85455760		12.562	15.000
Dibenzo(a,h)anthracene	0.589	0.618	0.667	0.584	0.718	0.847	AVRG		0.67032619		14.961	15.000
Benzo(g,h,i)perylene	0.906	0.992	0.843	0.900	0.874	0.998	AVRG		0.91886640		6.854	15.000
2-Methylnaphthalene-D10	1.205	1.336	1.341	1.245	1.221	1.139	AVRG		1.24791103		6.310	15.000
Fluorene-D10	23642	59674	145560	278880	560700	876480	LINR	-0.2722150	0.94044550		0.99706	0.99000
Pyrene-D10	1.171	1.322	1.205	1.275	1.053	1.043	AVRG		1.17814832		9.675	15.000

FORM VI SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID: ND033 DFTPP Injection Date: 05/11/11

Instrument ID: GCMS-N DFTPP Injection Time: 0810

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.6
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Less than 100.0% of mass 198	39.4
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	53.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	22.0
365	1.0 - 100.0% of mass 198	2.6
441	0.0 - 100.0% of mass 443	11.3 (73.1)2
442	40.0 - 100.0% of mass 198	72.4
443	17.0 - 23.0% of mass 442	15.4 (21.2)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00N0511	N0445	05/11/11	0830
02	B200-MW01S-20110504	SE2433-1DL2	N0446	05/11/11	0913
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GCMS-N Calibration Date: 05/11/11 Time: 0830

Lab File ID: N0445 Init. Calib. Date(s): 05/10/11 05/10/11

Init. Calib. Times: 0902 1314

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1-Methylnaphthalene	0.9307500	1.0000000	0.6610800	0.01	-6.92	20.00	2RDR	
Naphthalene	0.9590000	1.0450000	1.0450000	0.01	8.97	20.00	AVRG	
2-Methylnaphthalene	1.1201000	1.0000000	1.0045000	0.01	12.01	20.00	2RDR	
Acenaphthylene	1.9000000	2.0038000	2.0038000	0.01	5.46	20.00	AVRG	
Acenaphthene	1.2610000	1.3199000	1.3199000	0.01	4.67	20.01	AVRG	
Fluorene	1.3720000	1.4953000	1.4953000	0.01	8.99	20.00	AVRG	
Phenanthrene	1.2120000	1.2497000	1.2497000	0.01	3.11	20.00	AVRG	
Anthracene	1.2560000	1.3041000	1.3041000	0.01	3.83	20.00	AVRG	
Fluoranthene	1.1120000	1.1969000	1.1969000	0.01	7.63	20.01	AVRG	
Pyrene	1.9060000	1.9338000	1.9338000	0.01	1.46	20.00	AVRG	
Benzo(a)anthracene	1.0552000	1.0000000	1.0076000	0.01	5.52	20.00	LINR	
Chrysene	0.9437500	1.0000000	1.6898000	0.01	-5.62	20.00	2RDR	
Benzo(b)fluoranthene	1.0750000	1.0000000	1.3200000	0.01	7.50	20.00	LINR	
Benzo(k)fluoranthene	1.0137000	1.0000000	1.8729000	0.01	1.37	20.00	LINR	
Benzo(a)pyrene	1.0274000	1.0000000	1.1076000	0.01	2.74	20.01	LINR	
Indeno(1,2,3-cd)pyrene	0.8540000	0.9305300	0.9305300	0.01	8.96	20.00	AVRG	
Dibenzo(a,h)anthracene	0.6700000	0.6906000	0.6906000	0.01	3.07	20.00	AVRG	
Benzo(g,h,i)perylene	0.9190000	0.9372600	0.9372600	0.01	1.99	20.00	AVRG	
2-Methylnaphthalene-D10	1.2480000	1.3056000	1.3056000	0.01	4.62	20.00	AVRG	
Fluorene-D10	1.2085000	1.0000000	1.5166000	0.01	20.85	20.00	LINR	<-
Pyrene-D10	1.1780000	1.1870000	1.1870000	0.01	0.76	20.00	AVRG	

FORM VII PEST

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG91135-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID: N0437 Lab Sample ID: WG91135-1

Instrument ID: GCMS-N Date Extracted: 05/05/11

Matrix: (soil/water) WATER Date Analyzed: 05/10/11

Level:(low/med) LOW Time Analyzed: 1437

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG91135-LCS	WG91135-2	N0438	05/10/11	1518
02	WG91135-LCSD	WG91135-3	N0439	05/10/11	1559
03	B200-MW01D-20110504	SE2433-2	N0440	05/10/11	1641
04	B200-MW02S-20110504	SE2433-3	N0441	05/10/11	1722
05	B200-MW02D-20110504	SE2433-4	N0442	05/10/11	1803
06	B200-MW01S-20110504	SE2433-1	N0444	05/10/11	1926
07	B200-MW01S-20110504	SE2433-1DL2	N0446	05/11/11	0913
08					
09					
10					
11					
12					
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30					

COMMENTS:

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG91135-1
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91135

Analysis Date: 10-MAY-11
Analyst: JCG
Analysis Method: SW846 M8270C
Matrix: AQ
% Solids: NA
Report Date: 11-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	0.064	ug/L	1	.2	0.20	0.064	0.10
1-Methylnaphthalene	U	0.068	ug/L	1	.2	0.20	0.068	0.10
2-Methylnaphthalene	U	0.077	ug/L	1	.2	0.20	0.077	0.10
Acenaphthylene	U	0.054	ug/L	1	.2	0.20	0.054	0.10
Acenaphthene	U	0.064	ug/L	1	.2	0.20	0.064	0.10
Fluorene	U	0.061	ug/L	1	.2	0.20	0.061	0.10
Phenanthrene	U	0.051	ug/L	1	.2	0.20	0.051	0.10
Anthracene	U	0.044	ug/L	1	.2	0.20	0.044	0.10
Fluoranthene	U	0.073	ug/L	1	.2	0.20	0.073	0.10
Pyrene	U	0.059	ug/L	1	.2	0.20	0.059	0.10
Benzo (a) anthracene	U	0.046	ug/L	1	.2	0.20	0.046	0.10
Chrysene	U	0.036	ug/L	1	.2	0.20	0.036	0.10
Benzo (b) Fluoranthene	U	0.089	ug/L	1	.2	0.20	0.089	0.10
Benzo(k)fluoranthene	U	0.049	ug/L	1	.2	0.20	0.049	0.10
Benzo(a)pyrene	U	0.066	ug/L	1	.2	0.20	0.066	0.10
Indeno (1,2,3-cd) pyrene	U	0.052	ug/L	1	.2	0.20	0.052	0.10
Dibenzo (a,h) anthracene	U	0.070	ug/L	1	.2	0.20	0.070	0.10
Benzo(g,h,i)perylene	U	0.065	ug/L	1	.2	0.20	0.065	0.10
2-Methylnaphthalene-D10		55.9	%					
Fluorene-D10		47.0	%					
pyrene-d10		99.6	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
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Katahdin
ANALYTICAL SERVICES

Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG91135-2
LCSD ID: WG91135-3
Project:
SDG: JAX01
Report Date: 11-MAY-11

Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91135

Analysis Date: 10-MAY-11
Analyst: JCG
Analysis Method: SW846 M8270C
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Naphthalene	2.00	1.29	64.5	1.32	66.0	ug/L	2	20	46-84
1-Methylnaphthalene	2.00	1.16	58.0	1.24	62.0	ug/L	7	20	51-82
2-Methylnaphthalene	2.00	1.38	69.0	1.46	73.0	ug/L	6	20	51-114
Acenaphthylene	2.00	1.20	60.0	1.24	62.0	ug/L	3	20	55-105
Acenaphthene	2.00	1.22	61.0	1.28	64.0	ug/L	5	20	53-90
Fluorene	2.00	1.29	64.5	1.38	69.0	ug/L	7	20	53-95
Phenanthrene	2.00	1.59	79.5	1.69	84.5	ug/L	6	20	73-100
Anthracene	2.00	1.58	79.0	1.62	81.0	ug/L	2	20	70-95
Fluoranthene	2.00	1.81	90.5	1.86	93.0	ug/L	3	20	81-109
Pyrene	2.00	1.85	92.5	1.77	88.5	ug/L	4	20	71-104
Benzo (a) anthracene	2.00	1.56	78.0	1.49	74.5	ug/L	4	20	70-110
Chrysene	2.00	1.66	83.0	1.73	86.5	ug/L	4	20	70-95
Benzo (b) Fluoranthene	2.00	1.66	83.0	1.61	80.5	ug/L	3	20	67-102
Benzo(k)fluoranthene	2.00	2.02	101.	2.02	101.	ug/L	0	20	68-103
Benzo(a)pyrene	2.00	J2.04	102.	J2.03	102.	ug/L	0	20	63-98
Indeno (1,2,3-cd) pyrene	2.00	1.85	92.5	2.06	103.	ug/L	11	20	61-112
Dibenzo (a,h) anthracene	2.00	1.66	83.0	1.99	99.5	ug/L	18	20	66-108
Benzo(g,h,i)perylene	2.00	1.83	91.5	2.07	104.	ug/L	12	20	62-106
2-Methylnaphthalene-D10			55.3		59.2				43-92
Fluorene-D10			60.8		65.6				29-101
pyrene-d10			92.7		90.4				53-166

600 Technology Way
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Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG91135-BLANK	WG91135-1	56	47	100						0
02	WG91135-LCS	WG91135-2	55	61	93						0
03	WG91135-LCSD	WG91135-3	59	66	90						0
04	B200-MW01D-20110504	SE2433-2	59	58	91						0
05	B200-MW02S-20110504	SE2433-3	49	48	70						0
06	B200-MW02D-20110504	SE2433-4	44	54	98						0
07	B200-MW01S-20110504	SE2433-1	10*	20*	70						2
08	B200-MW01S-20110504	SE2433-1DL2	D	D	D						0
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1	= 2-Methylnaphthalene-D1	(43- 92)
S2	= Fluorene-D10	(29-101)
S3	= Pyrene-D10	(53-166)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID (Standard): N0429 Date Analyzed: 05/10/11

Instrument ID: GCMS-N Time Analyzed: 0902

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
12 HOUR STD		51069		7.35		179316		10.09		79943		14.20	
UPPER LIMIT		102138		7.89		358632		10.63		159886		14.74	
LOWER LIMIT		25535		6.81		89658		9.55		39972		13.66	
	CLIENT SAMPLE ID	LAB SAMPLE ID											
01	WG91135-BLANK	WG91135-1		59829		7.35		216492		10.14		99742		14.22	
02	WG91135-LCS	WG91135-2		45223		7.35		167977		10.09		80728		14.20	
03	WG91135-LCSD	WG91135-3		40919		7.35		154636		10.09		70089		14.20	
04	B200-MW01D-20110504	SE2433-2		42794		7.35		162777		10.13		79109		14.21	
05	B200-MW02S-20110504	SE2433-3		44981		7.35		160158		10.13		73348		14.21	
06	B200-MW02D-20110504	SE2433-4		44266		7.35		163878		10.12		88450		14.20	
07	B200-MW01S-20110504	SE2433-1		51107		7.35		219072		10.09		513519*		14.20	
08		SSTD1.00N0511		34942		7.35		131431		10.09		60587		14.20	
09	B200-MW01S-20110504	SE2433-1DL2		34742		7.35		132779		10.09		100254		14.18	
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab File ID (Standard): N0429 Date Analyzed: 05/10/11

Instrument ID: GCMS-N Time Analyzed: 0902

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
12 HOUR STD		109960		17.71		75327		24.02		50795		27.17	
UPPER LIMIT		219920		18.25		150654		24.56		101590		27.71	
LOWER LIMIT		54980		17.17		37664		23.48		25398		26.63	
	CLIENT SAMPLE ID	LAB SAMPLE ID											
01	WG91135-BLANK	WG91135-1		142898		17.77		73742		24.09		43586		27.24	
02	WG91135-LCS	WG91135-2		119504		17.71		77402		24.02		50749		27.20	
03	WG91135-LCSD	WG91135-3		101715		17.71		69705		24.02		46048		27.20	
04	B200-MW01D-20110504	SE2433-2		127149		17.72		73652		24.05		37219		27.21	
05	B200-MW02S-20110504	SE2433-3		107882		17.72		66071		24.03		40791		27.19	
06	B200-MW02D-20110504	SE2433-4		116704		17.71		60780		24.03		38068		27.19	
07	B200-MW01S-20110504	SE2433-1		145825		17.70		81081		24.00		47443		27.16	
08		SSTD1.00N0511		93831		17.72		62975		24.02		40688		27.17	
09	B200-MW01S-20110504	SE2433-1DL2		106079		17.70		49733		24.04		28084		27.21	
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

GC Column: ZB-MULTIRESIDUE1 ID: 0.53 (mm) Init. Calib. Date(s): 02/04/11 02/05/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 14.52 TCX: 4.13

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01		AR1660 1.0	02/04/11	1440	14.52	4.13
02		AR1660 0.05	02/04/11	1506	14.53	4.13
03		AR1660 0.1	02/04/11	1532	14.53	4.14
04		AR1660 0.25	02/04/11	1558	14.53	4.14
05		AR1660 2.5	02/04/11	1624	14.53	4.14
06		AR1660 10	02/04/11	1650	14.52	4.14
07		AR1016 1.0	02/04/11	1716		
08		AR1260 1.0	02/04/11	1742		
09		AR1242 1.0	02/04/11	1808		
10		AR1248 1.0	02/04/11	2043		
11		AR1254 1.0	02/04/11	2319		
12		AR1221 1.0	02/05/11	0155		
13		AR1232 1.0	02/05/11	0431		
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date(s): 02/04/11 02/05/11

Column: ZB-MULTIRESIDUE1 ID: 0.53 (mm) Calibration Time(s): 1440 1152

LAB FILE ID: RF0.05: 7EB079 RF0.1: 7EB080 RF0.25: 7EB081
RF1: 7EB078 RF2.5: 7EB082 RF10: 7EB083

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFFICENTS A0	COEFFICENTS A1	COEFFICENTS A2	%RSD OR R^2	MAX %RSD OR R^2
Aroclor-1016	2e+007	2e+007	2e+007	2e+007	2.e+007	2e+007	AVRG		20486731.2		10.518	20.000
(2)	4e+007	4e+007	4e+007	4e+007	4e+007	3e+007	AVRG		37618686.1		6.469	20.000
(3)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		20888256.2		5.924	20.000
(4)	2e+007	2e+007	2e+007	2e+007	2e+007	1e+007	AVRG		15404363.7		3.740	20.000
(5)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		17968177.2		3.266	20.000
Aroclor-1221	1768800	1630900	2113600	2685900	7757700	3e+007	2ORDR	-0.2682737	3.364e-007	1.756e-015	0.99557	0.99000
(2)	410990	814040	2060800	7112800	2e+007	6e+007	2ORDR	-5.54e-003	1.338e-007	4.604e-016	0.99998	0.99000
(3)	1037400	2024300	5055000	2e+007	4e+007	1e+008	2ORDR	-7.68e-003	5.379e-008	1.594e-016	0.99999	0.99000
(4)	132350	262740	677200	2482700	6152300	2e+007	2ORDR	1.026e-003	3.812e-007	4.356e-015	0.99999	0.99000
Aroclor-1232	2e+007	2e+007	2e+007	1e+007	1e+007	1e+007	AVRG		14979275.1		12.448	20.000
(2)	1e+007	1e+007	9991900	9596400	9245400	8112600	AVRG		9898193.25		12.199	20.000
(3)	2.e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		18197358.0		7.654	20.000
(4)	1e+007	1e+007	1e+007	9934800	9780000	9258200	AVRG		10469351.7		9.396	20.000
(5)	9484000	8863200	8587200	7759600	7569300	7487700	AVRG		8291841.25		9.778	20.000
Aroclor-1242	2e+007	2e+007	2e+007	2e+007	2e+007	1e+007	AVRG		17472265.6		15.601	20.000
(2)	4e+007	3e+007	3e+007	3e+007	3e+007	3e+007	AVRG		31969283.8		9.191	20.000
(3)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		18125896.9		10.234	20.000
(4)	2e+007	2e+007	2e+007	2e+007	2e+007	1e+007	AVRG		16019371.2		6.404	20.000
(5)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		17257137.6		4.661	20.000
Aroclor-1248	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		17455594.6		6.804	20.000
(2)	2e+007	2e+007	2e+007	2e+007	2.e+007	2e+007	AVRG		20516931.7		4.258	20.000
(3)	3e+007	3e+007	3e+007	3e+007	3e+007	2e+007	AVRG		26489435.3		5.367	20.000
(4)	3e+007	3e+007	3e+007	3e+007	3e+007	3.e+007	AVRG		32123470.6		3.936	20.000
(5)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG		13868712.5		1.560	20.000
Aroclor-1254	2e+007	3e+007	3e+007	2e+007	3e+007	2e+007	AVRG		24602597.6		6.804	20.000
(2)	3e+007	4e+007	4e+007	3e+007	4e+007	3e+007	AVRG		34208794.7		5.848	20.000
(3)	4.e+007	4e+007	4e+007	4e+007	5e+007	4e+007	AVRG		42081695.9		5.406	20.000
(4)	3e+007	3e+007	3e+007	3e+007	3e+007	3.e+007	AVRG		30541884.2		4.978	20.000
(5)	3e+007	3e+007	3e+007	3e+007	3.e+007	3e+007	AVRG		28341452.5		5.321	20.000
Aroclor-1260	3e+007	3e+007	3e+007	3e+007	3e+007	3e+007	AVRG		28281617.7		2.523	20.000
(2)	4e+007	4e+007	4e+007	4e+007	4e+007	4e+007	AVRG		37204029.3		3.411	20.000
(3)	3e+007	3e+007	3e+007	3e+007	3e+007	3e+007	AVRG		32277606.1		1.985	20.000
(4)	5e+007	5e+007	5e+007	5e+007	6e+007	5e+007	AVRG		53984860.5		3.984	20.000
(5)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		24056199.5		2.206	20.000
Tetrachloro-m-xylene	7e+008	7e+008	7e+008	8e+008	7e+008	7e+008	AVRG		726350611		3.695	20.000
Decachlorobiphenyl	4e+008	5e+008	4.e+008	4e+008	4e+008	4e+008	AVRG		408613948		12.742	20.000

Report Date : 17-Feb-2011 11:16

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 04-FEB-2011 14:40
End Cal Date : 05-FEB-2011 11:52
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07EB04.b\PCB041.m
Cal Date : 08-Feb-2011 13:56 rthomas

Calibration File Names:
Level 1: \\target_server\gg\chem\gc07.i\GC07EB04.b\7EB079.D
Level 2: \\target_server\gg\chem\gc07.i\GC07EB04.b\7EB080.D
Level 3: \\target_server\gg\chem\gc07.i\GC07EB04.b\7EB081.D
Level 4: \\target_server\gg\chem\gc07.i\GC07EB04.b\7EB078.D
Level 5: \\target_server\gg\chem\gc07.i\GC07EB04.b\7EB082.D
Level 6: \\target_server\gg\chem\gc07.i\GC07EB04.b\7EB083.D

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2500000 Level 3	1.0000 Level 4	2.5000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
2 Aroclor-1221 (1)	1768818	1630936	2113620	2685863	7757723	26789391	QUAD	-0.26827	3.364e-007	1.756e-015	0.99557
(2)	410991	814040	2060758	7112842	17734958	61693984	QUAD	-0.00554	1.338e-007	4.604e-016	0.99998
(3)	1037386	2024274	5054952	17533640	41592811	133362297	QUAD	-0.00768	5.379e-008	1.594e-016	0.99999
(4)	132354	262735	677197	2482676	6152330	21128077	QUAD	0.00103	3.812e-007	4.356e-015	0.99999
4 Aroclor-1232 (1)	16442520	16350690	16453472	14721789	14161365	11745815	AVRG		14979275		12.44858
(2)	11413080	11029790	9991864	9596410	9245446	8112570	AVRG		9898193		12.19877
(3)	20207620	19385000	18086868	17533478	17641199	16329983	AVRG		18197358		7.65446
(4)	11874800	11213440	10754756	9934859	9780021	9258234	AVRG		10469352		9.39575
(5)	9483960	8863200	8587252	7759601	7569308	7487726	AVRG		8291841		9.77801
5 Aroclor-1242 (1)	21144840	19002170	18664144	17116932	15330835	13574673	AVRG		17472266		15.60120
(2)	36102220	32893420	32946464	31707537	31025834	27140228	AVRG		31969284		9.19105
(3)	21251480	18448020	18235976	17305218	17961446	15553242	AVRG		18125897		10.23372
(4)	17479020	16371330	16226616	15125243	16332256	14581762	AVRG		16019371		6.40359

Report Date : 17-Feb-2011 11:16

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 04-FEB-2011 14:40
End Cal Date : 05-FEB-2011 11:52
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07EB04.b\PCB041.m
Cal Date : 08-Feb-2011 13:56 rthomas

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2500000 Level 3	1.0000 Level 4	2.5000 Level 5	10.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
(5)	18009640	17959780	17463152	16444265	17578829	16087159	AVRG		17257138		4.66141
6 Aroclor-1016 (1)	22641200	21748160	21734512	20565714	19559621	16671180	AVRG		20486731		10.51764
(2)	39025560	38918290	39323904	37783174	37834588	32826601	AVRG		37618686		6.46932
(3)	21826140	21784430	21635556	20853951	20656593	18572867	AVRG		20888256		5.92440
(4)	15858180	16037730	15687128	15073477	15287110	14482558	AVRG		15404364		3.74048
(5)	18361880	18122800	18680280	17770897	17901135	16972071	AVRG		17968177		3.26575
7 Aroclor-1248 (1)	15593880	16610780	18541224	18461945	18259220	17266519	AVRG		17455595		6.80385
(2)	21336520	20880260	21137520	20595573	20227667	18924050	AVRG		20516932		4.25801
(3)	27092840	27941860	27250924	26637673	26153918	23859397	AVRG		26489435		5.36678
(4)	33527720	32414430	32674260	32314455	32050801	29759157	AVRG		32123471		3.93560
(5)	13927420	14097050	14006124	13545390	13660164	13976127	AVRG		13868713		1.55998
8 Aroclor-1254 (1)	24012660	26296840	25542556	22092489	26158670	23512371	AVRG		24602598		6.80446
(2)	32969400	36483490	35053424	32010620	36330214	32405620	AVRG		34208795		5.84756
(3)	40346700	43506030	43605384	40547085	45080473	39404504	AVRG		42081696		5.40589
(4)	29020840	31276090	31242424	28747945	32752639	30211367	AVRG		30541884		4.97813
(5)	26446540	29411260	28879324	26709549	30260552	28341490	AVRG		28341453		5.32088
9 Aroclor-1260 (1)	28557480	28599970	28786440	27694796	28930343	27120677	AVRG		28281618		2.52278
(2)	38121920	37767040	38050432	36277467	37976220	35031097	AVRG		37204029		3.41103
(3)	32930880	32238670	32577884	31370456	32870018	31677729	AVRG		32277606		1.98482
(4)	51929440	53330380	54307920	54221263	57888255	52231905	AVRG		53984860		3.98348
(5)	23595500	23992290	23897660	23469555	24781539	24600653	AVRG		24056200		2.20604
10 Aroclor-1262 (1)	29822000	30921410	32334820	31875938	30722965	29519160	AVRG		30866049		3.57990

Report Date : 17-Feb-2011 11:16

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 04-FEB-2011 14:40
End Cal Date : 05-FEB-2011 11:52
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07EB04.b\PCB041.m
Cal Date : 08-Feb-2011 13:56 rthomas

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2500000 Level 3	1.0000 Level 4	2.5000 Level 5	10.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
(2)	42729620	39409430	41483408	41795309	40820552	38314340	AVRG		40758776		3.99899
(3)	28765620	29968550	30929144	31236470	30844467	29421841	AVRG		30194349		3.22381
(4)	68063400	68497110	72820660	75741301	73771790	64493487	AVRG		70564625		5.99781
(5)	22718040	21077880	21348644	21535977	21775098	22094323	AVRG		21758327		2.69129
11 Aroclor-1268 (1)	89661060	88334500	89754132	89937818	90475663	+++++	AVRG		89632635		0.88281
(2)	76096280	75562070	78295940	78626975	79232937	+++++	AVRG		77562840		2.10007
(3)	63006120	62322430	63806116	64576018	66770074	+++++	AVRG		64096152		2.67949
(4)	165098840	161070530	168221924	169919482	165270052	+++++	AVRG		165916166		2.04187
(5)	23341300	26918480	26037728	25486543	26396744	+++++	AVRG		25636159		5.40251
$ 3 Tetrachloro-m-xylene	685050000	714807500	744615800	763660450	720869860	729100055	AVRG		726350611		3.69534
$ 12 Decachlorobiphenyl	443665000	494424500	403648200	354943500	369755600	385246890	AVRG		408613948		12.74156

Report Date : 17-Feb-2011 11:16

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 04-FEB-2011 14:40
End Cal Date : 05-FEB-2011 11:52
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07EB04.b\PCB041.m
Cal Date : 08-Feb-2011 13:56 rthomas

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 02/04/11 Time: 1716

Lab File ID: 7EB040 Init. Calib. Date(s): 02/04/11 02/05/11

Init. Calib. Times: 1440 1152

GC Column: ZB-MULTIRESIDUE1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	20487000	21660000	0.001	5.72	20.00	AVRG
(2)	37619000	40473000	0.001	7.59	20.00	AVRG
(3)	20888000	22066000	0.001	5.64	20.00	AVRG
(4)	15404000	16109000	0.001	4.58	20.00	AVRG
(5)	17968000	18342000	0.001	2.08	20.00	AVRG
Average %D: 5.1200						

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 02/04/11 Time: 1742

Lab File ID: 7EB041 Init. Calib. Date(s): 02/04/11 02/05/11

Init. Calib. Times: 1440 1152

GC Column: ZB-MULTIRESIDUE1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	28282000	27910000	0.001	-1.32	20.00	AVRG
(2)	37204000	37381000	0.001	0.48	20.00	AVRG
(3)	32278000	34770000	0.001	7.72	20.00	AVRG
(4)	53985000	48832000	0.001	-9.54	20.00	AVRG
(5)	24056000	23066000	0.001	-4.12	20.00	AVRG
Average %D: -1.360						

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

GC Column: ZB-MULTIRESIDUE1 ID: 0.53 (mm) Init. Calib. Date(s): 02/04/11 02/05/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 13.30 TCX: 3.67

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01		AR1660 1.0	05/06/11	0950	13.30	3.65
02	WG91144-BLAN	WG91144-1	05/06/11	1214	13.30	3.65
03	WG91144-LCS	WG91144-2	05/06/11	1240	13.28	3.65
04	WG91144-LCSD	WG91144-3	05/06/11	1306	13.28	3.65
05	B200-MW01S-2	SE2433-1	05/06/11	1359	13.28	3.65
06	B200-MW01D-2	SE2433-2	05/06/11	1425	13.29	3.65
07	B200-MW02S-2	SE2433-3	05/06/11	1451	13.29	3.65
08	B200-MW02D-2	SE2433-4	05/06/11	1517	13.28	3.65
09		AR1660 0.25	05/06/11	1701	13.29	3.65
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 05/06/11 Time: 0950

Lab File ID: 7EE140 Init. Calib. Date(s): 02/04/11 02/04/11

Init. Calib. Times: 1440 1650

GC Column: ZB-MULTIRESIDUE1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	20487000	25790000	0.001	25.88	20.00	AVRG	<-
(2)	37619000	45650000	0.001	21.35	20.00	AVRG	<-
(3)	20888000	25216000	0.001	20.72	20.00	AVRG	<-
(4)	15404000	17962000	0.001	16.61	20.00	AVRG	
(5)	17968000	21664000	0.001	20.57	20.00	AVRG	<-
Average %D: 21.030							
Aroclor-1260	28282000	36982000	0.001	30.76	20.00	AVRG	<-
(2)	37204000	50384000	0.001	35.43	20.00	AVRG	<-
(3)	32278000	40509000	0.001	25.50	20.00	AVRG	<-
(4)	53985000	68359000	0.001	26.63	20.00	AVRG	<-
(5)	24056000	27152000	0.001	12.87	20.00	AVRG	
Average %D: 26.240							
Decachlorobiphenyl	408610000	474600000	0.001	16.15	20.00	AVRG	
Tetrachloro-m-xylene	726350000	965540000	0.001	32.93	20.00	AVRG	<-

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 05/06/11 Time: 1701

Lab File ID: 7EE155 Init. Calib. Date(s): 02/04/11 02/04/11

Init. Calib. Times: 1440 1650

GC Column: ZB-MULTIRESIDUE1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	20487000	26457000	0.001	29.14	20.00	AVRG	<-
(2)	37619000	44694000	0.001	18.81	20.00	AVRG	
(3)	20888000	24846000	0.001	18.95	20.00	AVRG	
(4)	15404000	17646000	0.001	14.56	20.00	AVRG	
(5)	17968000	21178000	0.001	17.86	20.00	AVRG	
Average %D: 19.880							
Aroclor-1260	28282000	36309000	0.001	28.38	20.00	AVRG	<-
(2)	37204000	46517000	0.001	25.03	20.00	AVRG	<-
(3)	32278000	35503000	0.001	9.99	20.00	AVRG	
(4)	53985000	57862000	0.001	7.18	20.00	AVRG	
(5)	24056000	23492000	0.001	-2.34	20.00	AVRG	
Average %D: 13.640							
Decachlorobiphenyl	408610000	519050000	0.001	27.03	20.00	AVRG	<-
Tetrachloro-m-xylene	726350000	937530000	0.001	29.07	20.00	AVRG	<-

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

GC Column: ZB-MULTIRESIDUE2 ID: 0.53 (mm) Init. Calib. Date(s): 02/04/11 02/05/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.70 DCB: 18.53

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	02/04/11	1440	4.70	18.53
02		AR1660 0.05	02/04/11	1506	4.70	18.53
03		AR1660 0.1	02/04/11	1532	4.70	18.53
04		AR1660 0.25	02/04/11	1558	4.71	18.54
05		AR1660 2.5	02/04/11	1624	4.70	18.54
06		AR1660 10	02/04/11	1650	4.71	18.54
07		AR1016 1.0	02/04/11	1716		
08		AR1260 1.0	02/04/11	1742		
09		AR1242 1.0	02/04/11	1808		
10		AR1248 1.0	02/04/11	2043		
11		AR1254 1.0	02/04/11	2319		
12		AR1221 1.0	02/05/11	0155		
13		AR1232 1.0	02/05/11	0431		
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date(s): 02/04/11 02/05/11

Column: ZB-MULTIRESIDUE2 ID: 0.53 (mm) Calibration Time(s): 1440 1152

LAB FILE ID: RF0.05: 7EB079 RF0.1: 7EB080 RF0.25: 7EB081
RF1: 7EB078 RF2.5: 7EB082 RF10: 7EB083

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
Aroclor-1016	4080400	4278900	4279100	4016600	3889900	3461600	AVRG	4001089.55	7.617	20.000
(2)	7759600	7811300	7789800	7382100	7471300	6602600	AVRG	7469455.83	6.172	20.000
(3)	4659000	4647200	4482400	4152700	4199900	3834000	AVRG	4329209.13	7.496	20.000
(4)	3257000	3186500	3104200	2948300	3008100	2840100	AVRG	3057334.82	5.072	20.000
(5)	3709700	3676800	3542800	3341100	3386000	3197900	AVRG	3475712.35	5.798	20.000
Aroclor-1221	1039200	1051900	1052200	899640	885540	840780	AVRG	961555.900	10.042	20.000
(2)	1814900	1836700	1833500	1645700	1652600	1473100	AVRG	1709432.57	8.512	20.000
(3)	1220300	1231600	1229700	1085300	1071500	926270	AVRG	1127455.90	10.886	20.000
(4)	4345500	4177900	4097900	3666400	3546800	3066500	AVRG	3816841.87	12.550	20.000
Aroclor-1232	3667600	3431500	3467900	3137000	3011200	2643000	AVRG	3226366.78	11.511	20.000
(2)	2157700	2085800	2178900	1955400	1879700	1697600	AVRG	1992512.92	9.303	20.000
(3)	3706100	3541200	3754400	3505700	3426600	3216000	AVRG	3525002.38	5.548	20.000
(4)	2345500	2136000	2239600	1997800	1968200	1829000	AVRG	2086005.67	9.124	20.000
(5)	1598700	1462300	1585400	1414200	1432100	1366900	AVRG	1476596.45	6.415	20.000
Aroclor-1242	3861400	3638700	3604700	3378200	3331000	2882400	AVRG	3449408.78	9.790	20.000
(2)	7073700	6449200	6554300	6347300	6434600	5550600	AVRG	6401615.55	7.670	20.000
(3)	3924000	3787600	3776600	3577400	3602900	3193900	AVRG	3643732.97	7.000	20.000
(4)	3237700	3072200	3037600	2905400	2988400	2706900	AVRG	2991359.50	5.936	20.000
(5)	3221900	2996600	2910400	2851100	3000800	2760800	AVRG	2956951.68	5.359	20.000
Aroclor-1248	4164800	4309500	4135100	3922300	3835500	3611400	AVRG	3996429.57	6.381	20.000
(2)	5112700	5298400	5145000	4958000	4849200	4467000	AVRG	4971729.55	5.875	20.000
(3)	4092600	4335700	4257100	4125700	4083100	3858000	AVRG	4125362.50	3.997	20.000
(4)	5684100	5898000	5826000	5590000	5490500	5096100	AVRG	5597443.47	5.134	20.000
(5)	5122300	5249000	5207600	5082400	5016400	4721900	AVRG	5066598.40	3.722	20.000
Aroclor-1254	5055600	5175500	4960600	4947000	4854400	4460200	AVRG	4908922.30	4.998	20.000
(2)	5623400	5753900	5498600	5456600	5342600	4876100	AVRG	5425208.12	5.603	20.000
(3)	7271900	7516000	7198200	7078600	7055100	6298600	AVRG	7069741.38	5.837	20.000
(4)	4710900	5023500	4873000	4202900	4788000	4348100	AVRG	4657746.13	6.807	20.000
(5)	4407100	4573300	4479400	3977000	4505900	4182500	AVRG	4354190.70	5.250	20.000
Aroclor-1260	4598000	4729600	4758500	4450600	4566400	4278300	AVRG	4563563.23	3.931	20.000
(2)	5626700	5723000	5737600	5368300	5474000	5028500	AVRG	5493034.22	4.900	20.000
(3)	4343800	4315400	4390600	4073900	4273400	4000300	AVRG	4232895.70	3.735	20.000
(4)	8710100	8438400	8395900	7844800	8038200	7350400	AVRG	8129649.60	6.026	20.000
(5)	3571000	3753600	3864900	3617200	3820900	3674500	AVRG	3716993.10	3.116	20.000
Tetrachloro-m-xylene	2e+008	2e+008	2e+008	2e+008	2e+008	2e+008	AVRG	165867068	1.743	20.000
Decachlorobiphenyl	6e+007	6e+007	6e+007	5e+007	6e+007	5e+007	AVRG	55352153.3	2.400	20.000

Report Date : 17-Feb-2011 11:16

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 04-FEB-2011 14:40
End Cal Date : 05-FEB-2011 11:52
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07EB04.b\PCB041.m\PCB041.
Cal Date : 07-Feb-2011 08:18 rthomas
Curve Type : Average

Calibration File Names:
Level 1: \\target_server\gg\chem\gc07.i\GC07EB04.b\GC07EB04.b\7EB079.D
Level 2: \\target_server\gg\chem\gc07.i\GC07EB04.b\GC07EB04.b\7EB080.D
Level 3: \\target_server\gg\chem\gc07.i\GC07EB04.b\GC07EB04.b\7EB081.D
Level 4: \\target_server\gg\chem\gc07.i\GC07EB04.b\GC07EB04.b\7EB078.D
Level 5: \\target_server\gg\chem\gc07.i\GC07EB04.b\GC07EB04.b\7EB082.D
Level 6: \\target_server\gg\chem\gc07.i\GC07EB04.b\GC07EB04.b\7EB083.D

	Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	RRF	% RSD
M	1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	3 Aroclor-1221 (1)	1039220	1051920	1052232	899642	885544	840778	961556	10.042
	(2)	1814880	1836720	1833548	1645708	1652638	1473101	1709433	8.512
	(3)	1220340	1231630	1229704	1085329	1071463	926270	1127456	10.886
	(4)	4345480	4177940	4097868	3666449	3546812	3066503	3816842	12.551
	4 Aroclor-1232 (1)	3667580	3431480	3467876	3137029	3011206	2643030	3226367	11.511
	(2)	2157660	2085810	2178864	1955454	1879735	1697555	1992513	9.303
	(3)	3706100	3541220	3754424	3505693	3426626	3215951	3525002	5.548
	(4)	2345460	2136000	2239600	1997762	1968196	1829016	2086006	9.124
	(5)	1598680	1462260	1585444	1414192	1432111	1366892	1476596	6.415
	5 Aroclor-1016 (1)	4080380	4278910	4279120	4016561	3889935	3461632	4001090	7.617
	(2)	7759620	7811310	7789756	7382125	7471324	6602600	7469456	6.172
	(3)	4658960	4647250	4482424	4152730	4199926	3833965	4329209	7.495
	(4)	3256960	3186460	3104152	2948265	3008100	2840072	3057335	5.072
	(5)	3709740	3676790	3542812	3341071	3385968	3197893	3475712	5.798
	6 Aroclor-1242 (1)	3861380	3638720	3604680	3378206	3331034	2882433	3449409	9.790
	(2)	7073700	6449250	6554280	6347310	6434570	5550583	6401616	7.670
	(3)	3924000	3787640	3776552	3577381	3602878	3193947	3643733	7.000
	(4)	3237680	3072240	3037580	2905355	2988400	2706902	2991360	5.936
	(5)	3221940	2996580	2910384	2851125	3000826	2760856	2956952	5.359
	7 Aroclor-1248 (1)	4164760	4309480	4135060	3922326	3835512	3611439	3996430	6.381
	(2)	5112660	5298440	5145000	4958008	4849256	4467013	4971730	5.875
	(3)	4092600	4335690	4257116	4125670	4083074	3858025	4125363	3.997
	(4)	5684080	5898000	5826008	5590008	5490469	5096096	5597443	5.134
	(5)	5122340	5248990	5207564	5082441	5016364	4721892	5066598	3.722
	8 Aroclor-1254 (1)	5055600	5175510	4960656	4947058	4854458	4460252	4908922	4.998
	(2)	5623420	5753880	5498636	5456568	5342621	4876124	5425208	5.603
	(3)	7271880	7516000	7198208	7078589	7055148	6298623	7069741	5.837

Report Date : 17-Feb-2011 11:16

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 04-FEB-2011 14:40
End Cal Date : 05-FEB-2011 11:52
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07EB04.b\PCB041.m\PCB041.
Cal Date : 07-Feb-2011 08:18 rthomas
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
(4)	4710920	5023460	4873044	4202910	4788026	4348116	4657746	6.807
(5)	4407080	4573260	4479432	3976967	4505894	4182511	4354191	5.250
9 Aroclor-1260 (1)	4598040	4729600	4758512	4450600	4566352	4278276	4563563	3.931
(2)	5626680	5723040	5737636	5368336	5474016	5028498	5493034	4.900
(3)	4343760	4315370	4390640	4073908	4273381	4000315	4232896	3.735
(4)	8710080	8438420	8395948	7844828	8038218	7350403	8129650	6.026
(5)	3570980	3753550	3864872	3617212	3820878	3674466	3716993	3.116
10 Aroclor-1262 (1)	5488240	4787810	4879024	4671957	4479292	4179446	4747628	9.268
(2)	6608580	6165700	6290816	6075326	5854975	5329926	6054221	7.164
(3)	5464700	5209670	5272876	5192256	4961269	4651357	5125355	5.519
(4)	11193360	10107000	10437584	10227262	9899018	8741464	10100948	7.934
(5)	5499260	4565170	5197664	5090975	4919062	4688767	4993483	6.872
11 Aroclor-1268 (1)	12705680	12371630	12526056	12077161	11865761	10252861	11966525	7.458
(2)	10730440	10518950	10550172	10216764	10072694	8842331	10155225	6.756
(3)	8817940	8421000	8471000	8279377	8195481	7491050	8279308	5.335
(4)	24405840	23826440	24342748	23117328	22182297	17901631	22629381	10.881
(5)	4155240	4001960	3968276	3745560	3688117	3557650	3852800	5.836
$ 2 Tetrachloro-m-xylene	164229000	162632000	168882200	169544750	166432940	163481515	165867068	1.743
$ 12 Decachlorobiphenyl	55282000	56253500	56951400	53107350	55703980	54814690	55352153	2.400

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 02/04/11 Time: 1716

Lab File ID: 7EB040 Init. Calib. Date(s): 02/04/11 02/05/11

Init. Calib. Times: 1440 1152

GC Column: ZB-MULTIRESIDUE2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	4001100.0	4200200.0	0.001	4.98	20.00	AVRG
(2)	7469400.0	7974600.0	0.001	6.76	20.00	AVRG
(3)	4329200.0	4447000.0	0.001	2.72	20.00	AVRG
(4)	3057400.0	3120300.0	0.001	2.06	20.00	AVRG
(5)	3475700.0	3485200.0	0.001	0.27	20.00	AVRG
Average %D: 3.3600						

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 02/04/11 Time: 1742

Lab File ID: 7EB041 Init. Calib. Date(s): 02/04/11 02/05/11

Init. Calib. Times: 1440 1152

GC Column: ZB-MULTIRESIDUE2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	4563600.0	4516800.0	0.001	-1.02	20.00	AVRG
(2)	5493000.0	5430500.0	0.001	-1.14	20.00	AVRG
(3)	4232900.0	4611800.0	0.001	8.95	20.00	AVRG
(4)	8129600.0	7165100.0	0.001	-11.86	20.00	AVRG
(5)	3717000.0	3493300.0	0.001	-6.02	20.00	AVRG
Average %D: -2.220						

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

GC Column: ZB-MULTIRESIDUE2 ID: 0.53 (mm) Init. Calib. Date(s): 02/04/11 02/05/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.23 DCB: 17.26

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	05/06/11	0950	4.21	17.25
02	WG91144-BLAN	WG91144-1	05/06/11	1214	4.21	17.24
03	WG91144-LCS	WG91144-2	05/06/11	1240	4.21	17.25
04	WG91144-LCSD	WG91144-3	05/06/11	1306	4.21	17.25
05	B200-MW01S-2	SE2433-1	05/06/11	1359	4.22	17.25
06	B200-MW01D-2	SE2433-2	05/06/11	1425	4.22	17.25
07	B200-MW02S-2	SE2433-3	05/06/11	1451	4.22	17.25
08	B200-MW02D-2	SE2433-4	05/06/11	1517	4.22	17.25
09		AR1660 0.25	05/06/11	1701	4.21	17.25
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 05/06/11 Time: 0950

Lab File ID: 7EE140 Init. Calib. Date(s): 02/04/11 02/04/11

Init. Calib. Times: 1440 1650

GC Column: ZB-MULTIRESIDUE2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	4001100.0	4406600.0	0.001	10.14	20.00	AVRG	
(2)	7469400.0	7782700.0	0.001	4.19	20.00	AVRG	
(3)	4329200.0	4411700.0	0.001	1.90	20.00	AVRG	
(4)	3057400.0	3050700.0	0.001	-0.22	20.00	AVRG	
(5)	3475700.0	3639500.0	0.001	4.71	20.00	AVRG	
Average %D: 4.1500							
Aroclor-1260	4563600.0	4575900.0	0.001	0.27	20.00	AVRG	
(2)	5493000.0	5368600.0	0.001	-2.26	20.00	AVRG	
(3)	4232900.0	3875200.0	0.001	-8.45	20.00	AVRG	
(4)	8129600.0	7811800.0	0.001	-3.91	20.00	AVRG	
(5)	3717000.0	3625900.0	0.001	-2.45	20.00	AVRG	
Average %D: -3.360							
Tetrachloro-m-xylene	165860000	199720000	0.001	20.42	20.00	AVRG	<-
Decachlorobiphenyl	55352000	61573000	0.001	11.24	20.00	AVRG	

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Instrument ID: GC07 Calibration Date: 05/06/11 Time: 1701

Lab File ID: 7EE155 Init. Calib. Date(s): 02/04/11 02/04/11

Init. Calib. Times: 1440 1650

GC Column: ZB-MULTIRESIDUE2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	4001100.0	4727100.0	0.001	18.14	20.00	AVRG	
(2)	7469400.0	8153800.0	0.001	9.16	20.00	AVRG	
(3)	4329200.0	4542100.0	0.001	4.92	20.00	AVRG	
(4)	3057400.0	3182700.0	0.001	4.10	20.00	AVRG	
(5)	3475700.0	3870400.0	0.001	11.36	20.00	AVRG	
Average %D: 9.5200							
Aroclor-1260	4563600.0	4760500.0	0.001	4.31	20.00	AVRG	
(2)	5493000.0	5562600.0	0.001	1.27	20.00	AVRG	
(3)	4232900.0	4095300.0	0.001	-3.25	20.00	AVRG	
(4)	8129600.0	7789800.0	0.001	-4.18	20.00	AVRG	
(5)	3717000.0	3684700.0	0.001	-0.87	20.00	AVRG	
Average %D: -0.560							
Tetrachloro-m-xylene	165860000	202990000	0.001	22.39	20.00	AVRG	<-
Decachlorobiphenyl	55352000	69147000	0.001	24.92	20.00	AVRG	<-

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG91144-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

Lab Sample ID: WG91144-1 Lab File ID: 7EE144

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW846 3510

Sulfur Cleanup: (Y/N) N Date Extracted: 05/05/11

Date Analyzed (1): 05/06/11 Date Analyzed (2): 05/06/11

Time Analyzed (1): 1214 Time Analyzed (2): 1214

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): ZB-MULTIRESIDUE1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG91144-LCS	WG91144-2	7EE145	05/06/11	05/06/11
02	WG91144-LCSD	WG91144-3	7EE146	05/06/11	05/06/11
03	B200-MW01S-20110504	SE2433-1	7EE148	05/06/11	05/06/11
04	B200-MW01D-20110504	SE2433-2	7EE149	05/06/11	05/06/11
05	B200-MW02S-20110504	SE2433-3	7EE150	05/06/11	05/06/11
06	B200-MW02D-20110504	SE2433-4	7EE151	05/06/11	05/06/11
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
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19					
20					
21					
22					
23					
24					

COMMENTS: _____

FORM IVPCB

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG91144-1
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91144

Analysis Date: 06-MAY-11
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.15	ug/L	1	.5	0.50	0.15	0.25
Aroclor-1221	U	0.20	ug/L	1	.5	0.50	0.20	0.25
Aroclor-1232	U	0.089	ug/L	1	.5	0.50	0.089	0.25
Aroclor-1242	U	0.18	ug/L	1	.5	0.50	0.18	0.25
Aroclor-1248	U	0.20	ug/L	1	.5	0.50	0.20	0.25
Aroclor-1254	U	0.082	ug/L	1	.5	0.50	0.082	0.25
Aroclor-1260	U	0.17	ug/L	1	.5	0.50	0.17	0.25
Tetrachloro-M-Xylene	J	50.6	%					
Decachlorobiphenyl		62.8	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

LCS/LCSD Recovery Report

LCS ID: WG91144-2
LCSD ID: WG91144-3
Project:
SDG: JAX01
Report Date: 10-MAY-11

Received Date: 05-MAY-11
Extract Date: 05-MAY-11
Extracted By: KD
Extraction Method: SW846 3510
Lab Prep Batch: WG91144

Analysis Date: 06-MAY-11
Analyst: JLP
Analysis Method: SW846 8082
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Aroclor-1016	5.00	4.84	96.8	4.52	90.4	ug/L	7	30	65-112
Aroclor-1260	5.00	4.42	88.4	4.29	85.8	ug/L	3	30	62-104
Tetrachloro-M-Xylene			95.4		85.9				62-111
Decachlorobiphenyl			88.8		85.6				44-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

FORM 2
WATER PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM19 PSC45 SDG No.: JAX01

GC Column(1): ZB-MULTIRESIDUE1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG91144-BLANK	WG91144-1	51J	50J	63	57			2
02	WG91144-LCS	WG91144-2	95	90	89	80			0
03	WG91144-LCSD	WG91144-3	86	82	86	78			0
04	B200-MW01S-20110504	SE2433-1	65	73	72	69			0
05	B200-MW01D-20110504	SE2433-2	87	90	91	87			0
06	B200-MW02S-20110504	SE2433-3	52J	54J	15J	16J			4
07	B200-MW02D-20110504	SE2433-4	79	82	65	62			0
08									
09									
10									
11									
12									
13									
14									
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18									
19									
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21									
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23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (62-111)
S2 (DCB) = Decachlorobiphenyl (44-135)

Column to be used to flag recovery values
J Values outside of QC limits
D Surrogate diluted out

FORM 8
FL-PRO ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM PSC45 RI SDG No.: JAX01

GC Column: ZB-1 ID: 0.53 (mm) Init. Calib. Date(s): 05/05/11 05/05/11

Instrument ID: GC12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 14.77 S2 : 21.36

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01		FLP50	05/05/11	1554	14.77	21.36
02		FLP200	05/05/11	1713	14.78	21.36
03		FLP100	05/05/11	1821	14.77	21.36
04		FLP20	05/05/11	1928	14.77	21.36
05		FLP5	05/05/11	2036	14.77	21.36
06		FLPIND	05/05/11	2143	14.77	21.36
07		FLP50	05/06/11	1736	14.77	21.35
08	WG91197-BLAN	WG91197-1	05/06/11	1843	14.77	21.36
09	WG91197-LCS	WG91197-2	05/06/11	1951	14.77	21.36
10	WG91197-LCSD	WG91197-3	05/06/11	2058	14.77	21.35
11	B200-MW01D-2	SE2433-2	05/06/11	2206	14.77	21.35
12	B200-MW02S-2	SE2433-3	05/06/11	2313	14.77	21.35
13	B200-MW02D-2	SE2433-4	05/07/11	0020	14.77	21.35
14	B200-MW01S-2	SE2433-1DL	05/07/11	0128	14.77	21.35
15		FLP20	05/07/11	0450	14.77	21.35
16						
17						
18						
19						
20						

		QC LIMITS
S1	= O-Terphenyl	(+/- 0.30 MINUTES)
S2	= n-Triacontane-D62	(+/- 0.43 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 6
FL-PRO INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JACKSONVILLE, CTO JM PSC45 RI SDG No.: JAX01

Instrument ID: GC12 Calibration Date(s): 05/05/11 05/05/11

Column: ZB-1 ID: 0.53 (mm) Calibration Time(s): 1554 2036

LAB FILE ID: RF5: CEE2031 RF20: CEE2030 RF50: CEE2027
RF100: CEE2029 RF200: CEE2028

							COEFFICENTS		%RSD	MAX %RSD
COMPOUND	RF5	RF20	RF50	RF100	RF200	CURVE	A0	A1	OR R^2	OR R^2
FL-PRO peaks C8-C40	334550	1306100	3204900	6534000	1e+007	LINR	-8.0889467	2.663e-004	0.99984	0.99000
C-8	25075	86538	209540	421400	822560	LINR	-0.9738128	2.433e-004	0.99986	0.99000
C-10	21270	83538	206260	422070	825580	LINR	-0.2857323	2.417e-004	0.99987	0.99000
C-12	20894	83829	205630	421330	823690	LINR	-0.2899648	2.422e-004	0.99986	0.99000
C-14	21294	84162	207430	423370	829190	LINR	-0.2992895	2.407e-004	0.99989	0.99000
C-16	21391	83907	207500	426030	835340	LINR	-0.1635507	2.388e-004	0.99988	0.99000
C-18	21666	84075	207250	425600	832120	LINR	-0.2675200	2.398e-004	0.99986	0.99000
C-38	11905	51537	122240	255020	485700	LINR	-0.7431373	4.096e-004	0.99936	0.99000
C-20	21686	84037	207310	423480	829520	LINR	-0.3054981	2.406e-004	0.99989	0.99000
C-22	21844	84233	209060	427960	836920	LINR	-0.2779243	2.384e-004	0.99987	0.99000
C-24	21399	82802	205760	419570	821630	LINR	-0.2944029	2.429e-004	0.99988	0.99000
C-26	21497	82882	206200	417560	819670	LINR	-0.3469204	2.436e-004	0.99992	0.99000
C-28	21535	81992	202510	412340	802360	LINR	-0.5409227	2.487e-004	0.99982	0.99000
C-36	15477	62957	150620	307650	586730	LINR	-1.0988756	3.397e-004	0.99943	0.99000
C-30	21419	81220	199560	400990	779530	LINR	-0.8280134	2.563e-004	0.99980	0.99000
C-32	19447	76050	185710	370870	722040	LINR	-0.8888799	2.768e-004	0.99981	0.99000
C-34	18276	72578	176520	354630	685540	LINR	-0.9677645	2.912e-004	0.99971	0.99000
C-40	8464	39782	95749	204080	401900	LINR	0.61054270	4.951e-004	0.99975	0.99000
O-Terphenyl	241320	236620	231120	237810	228210	LINR	0.10093430	2.122e-004	0.99758	0.99000
n-Triacontane-D62	1059800	1028900	1026300	1026000	976670	LINR	1.01258700	2.919e-004	0.99595	0.99000

FORM VI FL-PRO

Report Date : 10-May-2011 09:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2011 15:54
End Cal Date : 05-MAY-2011 20:36
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : HP Genie
Method file : \\target_server\GG\chem\gc12.i\GC12EE05B1.b\flpb021A.m
Cal Date : 10-May-2011 08:31 acronin

Calibration File Names:
Level 1: \\target_server\GG\chem\gc12.i\GC12EE05B1.b\CEE2031.d
Level 2: \\target_server\GG\chem\gc12.i\GC12EE05B1.b\CEE2030.d
Level 3: \\target_server\GG\chem\gc12.i\GC12EE05B1.b\CEE2027.d
Level 4: \\target_server\GG\chem\gc12.i\GC12EE05B1.b\CEE2029.d
Level 5: \\target_server\GG\chem\gc12.i\GC12EE05B1.b\CEE2028.d

	Compound	5.0000 Level 1	20.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
M	1 FL-PRO peaks C8-C40	334548	1306126	3204882	6533956	12740037	LINR	-8.08895	3755		0.99984
	2 C-8	25075	86538	209545	421401	822560	LINR	-0.97381	4110		0.99986
	3 C-10	21270	83538	206259	422068	825582	LINR	-0.28573	4138		0.99987
	4 C-12	20894	83829	205631	421334	823690	LINR	-0.28996	4129		0.99986
	5 C-14	21294	84162	207434	423369	829193	LINR	-0.29929	4155		0.99989
	6 C-16	21391	83907	207504	426033	835337	LINR	-0.16355	4187		0.99989
S	7 Petroleum Range Organics	334548	1306126	3204882	6533956	12740037	LINR	-8.08895	3755		0.99984
	8 C-18	21666	84075	207254	425598	832119	LINR	-0.26752	4171		0.99986
	10 C-20	21686	84037	207314	423478	829525	LINR	-0.30550	4156		0.99989
	11 C-22	21844	84233	209063	427961	836919	LINR	-0.27792	4195		0.99987
	12 C-24	21399	82802	205755	419568	821634	LINR	-0.29440	4117		0.99989
	13 C-26	21497	82882	206200	417555	819670	LINR	-0.34692	4105		0.99992
	14 C-28	21535	81992	202511	412342	802361	LINR	-0.54092	4021		0.99982
	16 C-30	21419	81220	199561	400993	779528	LINR	-0.82801	3902		0.99980
	17 C-32	19447	76050	185712	370872	722042	LINR	-0.88888	3613		0.99981

Report Date : 10-May-2011 09:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2011 15:54
End Cal Date : 05-MAY-2011 20:36
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : HP Genie
Method file : \\target_server\GG\chem\gc12.i\GC12EE05B1.b\flpb021A.m
Cal Date : 10-May-2011 08:31 acronin

Compound	5.0000 Level 1	20.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
18 C-34	18276	72578	176515	354628	685542	LINR	-0.96776	3434		0.99971
19 C-36	15477	62957	150625	307654	586733	LINR	-1.09888	2944		0.99943
20 C-38	11905	51537	122242	255018	485698	LINR	-0.74314	2441		0.99936
21 C-40	8464	39782	95749	204075	401897	LINR	0.61054	2020		0.99975
$ 9 O-Terphenyl	241325	236623	231118	237811	228206	LINR	0.10093	4712		0.99758
$ 15 n-Triacontane-D62	1059752	1028861	1026283	1026049	976669	LINR	1.01259	3426		0.99595

Report Date : 10-May-2011 09:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2011 15:54
End Cal Date : 05-MAY-2011 20:36
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : HP Genie
Method file : \\target_server\GG\chem\gc12.i\GC12EE05B1.b\flpb021A.m
Cal Date : 10-May-2011 08:31 acronin

Curve	Formula	Units
Linear	Amt = b + Rsp/m1	Response

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM PSC45 RI SDG No.: JAX01

Instrument ID: GC12 Calibration Date: 05/05/11 Time: 2143

Lab File ID: CEE2032 Init. Calib. Date(s): 05/05/11 05/05/11

Init. Calib. Times: 1554 2036

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
FL-PRO peaks C8-C40	856.66000	850.00000	3815.1000	0.01	0.78	25.00	LINR
C-8	50.004000	50.000000	4190.0000	0.01	0.01	25.00	LINR
C-10	50.489000	50.000000	4201.8000	0.01	0.98	25.00	LINR
C-12	50.106000	50.000000	4161.2000	0.01	0.21	25.00	LINR
C-14	50.134000	50.000000	4190.6000	0.01	0.27	25.00	LINR
C-16	49.662000	50.000000	4172.2000	0.01	-0.68	25.00	LINR
C-18	50.475000	50.000000	4232.6000	0.01	0.95	25.00	LINR
C-38	53.194000	50.000000	2633.6000	0.01	6.39	25.00	LINR
C-20	50.052000	50.000000	4185.5000	0.01	0.10	25.00	LINR
C-22	47.979000	50.000000	4048.5000	0.01	-4.04	25.00	LINR
C-24	51.049000	50.000000	4227.7000	0.01	2.10	25.00	LINR
C-26	50.330000	50.000000	4160.3000	0.01	0.66	25.00	LINR
C-28	50.483000	50.000000	4102.8000	0.01	0.97	25.00	LINR
C-36	50.731000	50.000000	3051.9000	0.01	1.46	25.00	LINR
C-30	50.737000	50.000000	4024.4000	0.01	1.47	25.00	LINR
C-32	52.001000	50.000000	3821.8000	0.01	4.00	25.00	LINR
C-34	49.575000	50.000000	3470.9000	0.01	-0.85	25.00	LINR
C-40	49.662000	50.000000	1981.3000	0.01	-0.68	25.00	LINR
O-Terphenyl	51.024000	50.000000	4798.7000	0.01	2.05	25.00	LINR
n-Triacontane-D62	305.18000	300.00000	3473.2000	0.01	1.73	25.00	LINR

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM PSC45 RI SDG No.: JAX01

Instrument ID: GC12 Calibration Date: 05/06/11 Time: 1736

Lab File ID: CEE2048 Init. Calib. Date(s): 05/05/11 05/05/11

Init. Calib. Times: 1554 2036

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
FL-PRO peaks C8-C40	894.35000	850.00000	3939.5000	0.01	5.22	25.00	LINR
C-8	50.466000	50.000000	4227.9000	0.01	0.93	25.00	LINR
C-10	50.250000	50.000000	4182.0000	0.01	0.50	25.00	LINR
C-12	50.071000	50.000000	4158.4000	0.01	0.14	25.00	LINR
C-14	50.248000	50.000000	4200.1000	0.01	0.50	25.00	LINR
C-16	49.999000	50.000000	4200.5000	0.01	-0.00	25.00	LINR
C-18	50.198000	50.000000	4209.5000	0.01	0.40	25.00	LINR
C-38	59.946000	50.000000	2963.3000	0.01	19.89	25.00	LINR
C-20	50.200000	50.000000	4197.8000	0.01	0.40	25.00	LINR
C-22	50.276000	50.000000	4241.2000	0.01	0.55	25.00	LINR
C-24	50.718000	50.000000	4200.4000	0.01	1.44	25.00	LINR
C-26	50.998000	50.000000	4215.1000	0.01	2.00	25.00	LINR
C-28	51.205000	50.000000	4160.9000	0.01	2.41	25.00	LINR
C-36	57.010000	50.000000	3421.6000	0.01	14.02	25.00	LINR
C-30	52.226000	50.000000	4140.6000	0.01	4.45	25.00	LINR
C-32	53.518000	50.000000	3931.4000	0.01	7.04	25.00	LINR
C-34	54.883000	50.000000	3835.4000	0.01	9.77	25.00	LINR
C-40	62.140000	50.000000	2485.4000	0.01	24.28	25.00	LINR
O-Terphenyl	49.760000	50.000000	4679.6000	0.01	-0.48	25.00	LINR
n-Triacontane-D62	308.06000	300.00000	3506.1000	0.01	2.69	25.00	LINR

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM PSC45 RI SDG No.: JAX01

Instrument ID: GC12 Calibration Date: 05/07/11 Time: 0450

Lab File ID: CEE2058 Init. Calib. Date(s): 05/05/11 05/05/11

Init. Calib. Times: 1554 2036

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF20.000 or AMOUNT	CCAL RRF20.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
FL-PRO peaks C8-C40	345.61000	340.00000	3881.6000	0.01	1.65	25.00	LINR
C-8	20.074000	20.000000	4324.9000	0.01	0.37	25.00	LINR
C-10	19.986000	20.000000	4193.8000	0.01	-0.07	25.00	LINR
C-12	19.706000	20.000000	4127.8000	0.01	-1.47	25.00	LINR
C-14	20.257000	20.000000	4270.2000	0.01	1.28	25.00	LINR
C-16	20.113000	20.000000	4244.8000	0.01	0.56	25.00	LINR
C-18	19.694000	20.000000	4162.8000	0.01	-1.53	25.00	LINR
C-38	21.992000	20.000000	2775.2000	0.01	9.96	25.00	LINR
C-20	19.698000	20.000000	4156.4000	0.01	-1.51	25.00	LINR
C-22	19.882000	20.000000	4228.4000	0.01	-0.59	25.00	LINR
C-24	19.879000	20.000000	4152.7000	0.01	-0.60	25.00	LINR
C-26	19.900000	20.000000	4155.4000	0.01	-0.50	25.00	LINR
C-28	19.980000	20.000000	4125.4000	0.01	-0.10	25.00	LINR
C-36	21.292000	20.000000	3296.0000	0.01	6.46	25.00	LINR
C-30	20.056000	20.000000	4074.7000	0.01	0.28	25.00	LINR
C-32	20.123000	20.000000	3795.8000	0.01	0.62	25.00	LINR
C-34	20.615000	20.000000	3705.4000	0.01	3.08	25.00	LINR
C-40	22.362000	20.000000	2196.5000	0.01	11.81	25.00	LINR
O-Terphenyl	50.068000	50.000000	4708.6000	0.01	0.14	25.00	LINR
n-Triacontane-D62	300.33000	300.00000	3417.8000	0.01	0.11	25.00	LINR

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

| WG91197-BLANK |

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM PSC45 RI SDG No.: JAX01

Lab File ID: CEE2049 Lab Sample ID: WG91197-1

Instrument ID: GC12 Date Extracted: 05/06/11

Matrix: (soil/water) WATER Date Analyzed: 05/06/11

Level:(low/med) LOW Time Analyzed: 1843

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG91197-LCS	WG91197-2	CEE2050	05/06/11	1951
02	WG91197-LCSD	WG91197-3	CEE2051	05/06/11	2058
03	B200-MW01D-20110504	SE2433-2	CEE2052	05/06/11	2206
04	B200-MW02S-20110504	SE2433-3	CEE2053	05/06/11	2313
05	B200-MW02D-20110504	SE2433-4	CEE2054	05/07/11	0020
06	B200-MW01S-20110504	SE2433-1DL	CEE2055	05/07/11	0128
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH
nelac
Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG91197-1
Client ID: Method Blank Sample
Project:
SDG: JAX01

Sample Date:
Received Date: 06-MAY-11
Extract Date: 06-MAY-11
Extracted By: WS
Extraction Method: SW846 3510
Lab Prep Batch: WG91197

Analysis Date: 06-MAY-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: AQ
% Solids: NA
Report Date: 10-MAY-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics	U	150	ug/L	1	500	500	150	250
o-Terphenyl		110.	%					
n-Triacontane-D62		113.	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG91197-2
LCSD ID: WG91197-3
Project:
SDG: JAX01
Report Date: 10-MAY-11

Received Date: 06-MAY-11
Extract Date: 06-MAY-11
Extracted By: WS
Extraction Method: SW846 3510
Lab Prep Batch: WG91197

Analysis Date: 06-MAY-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Petroleum Range Organics	1700	1800	106.	1900	112.	ug/L	5	30	55-118
o-Terphenyl			97.0		110.				82-142
n-Triacontane-D62			100.		110.				70-130

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

FORM 2
WATER FL-PRO SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JACKSONVILLE, CTO JM PSC45 RI SDG No.: JAX01

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 OTP#	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG91197-BLANK	WG91197-1	114	109							0
02	WG91197-LCS	WG91197-2	101	97							0
03	WG91197-LCSD	WG91197-3	110	106							0
04	B200-MW01D-20110504	SE2433-2	98	92							0
05	B200-MW02S-20110504	SE2433-3	77	70J							1
06	B200-MW02D-20110504	SE2433-4	109	107							0
07	B200-MW01S-20110504	SE2433-1DL	113	102							0
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1	= n-Triacontane-D62	(70-130)
S2 (OTP)	= O-Terphenyl	(82-142)

Column to be used to flag recovery values
J Values outside of contract required QC limits
D Surrogate diluted out

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Instrument ID: CETAC M6100 **File Name:** HBE09A

Date: 5/9/2011 **Method:** CV

Lab Sample ID	Client ID	D.F.	Time	Elements
Callbration Blank		1	15:02	Hg
Standard #1 (0.2 pp		1	15:04	Hg
Standard #2 (0.5 pp		1	15:06	Hg
Standard #3 (1.0 pp		1	15:08	Hg
Standard #4 (5.0 pp		1	15:10	Hg
Standard #5 (10.0 p		1	15:12	Hg
ICV		1	15:14	HG
ICB		1	15:16	HG
PQL		1	15:19	HG
LCSWBE06HGW0		1	15:21	HG
PBWBE06HGW0		1	15:23	HG
ZZZZZZ		1	15:25	
ZZZZZZ		1	15:27	
ZZZZZZ		1	15:29	
ZZZZZZ		1	15:31	
ZZZZZZ		1	15:33	
ZZZZZZ		1	15:35	
ZZZZZZ		1	15:38	
CCV		1	15:40	HG
CCB		1	15:42	HG
ZZZZZZ		1	15:44	
ZZZZZZ		1	15:46	
ZZZZZZ		1	15:48	
SE2433-001	B200-MW01S-20110504	1	15:50	HG
SE2433-002	B200-MW01D-20110504	1	15:52	HG
SE2433-002L	!200-MW01D-20110504L	1	15:55	HG
SE2433-002P	200-MW01D-20110504P	1	15:57	HG
SE2433-002S	200-MW01D-20110504S	1	15:59	HG
SE2433-003	B200-MW02S-20110504	1	16:01	HG
SE2433-004	B200-MW02D-20110504	1	16:03	HG
CCV		1	16:05	HG
CCB		1	16:07	HG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Instrument ID: THERMO ICAP 6500 **File Name:** IBE09A

Date: 5/9/2011 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements									
Blank		1	12:50	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
Std 1		1	12:55	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ICV		1	12:59	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ICB		1	13:03	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
PQL		1	13:08	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ICSA		1	13:13	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ICSAB		1	13:17	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
CCV		1	13:22	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
CCB		1	13:27	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	13:31												
ZZZZZZ		1	13:36												
ZZZZZZ		1	13:40												
ZZZZZZ		1	13:45												
ZZZZZZ		1	13:49												
ZZZZZZ		1	13:54												
ZZZZZZ		1	13:58												
ZZZZZZ		1	14:03												
ZZZZZZ		1	14:08												
ZZZZZZ		1	14:12												
CCV		1	14:17	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
CCB		1	14:21	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	14:26												
ZZZZZZ		1	14:31												
ZZZZZZ		1	14:35												
ZZZZZZ		5	14:40												
ZZZZZZ		1	14:44												
ZZZZZZ		1	14:49												
ZZZZZZ		1	14:53												
ZZZZZZ		1	14:58												
PBWBE05ICW0		1	15:02	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
LCSWBE05ICW0		1	15:07	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
CCV		1	15:11	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
CCB		1	15:16	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	15:20												
ZZZZZZ		1	15:25												
ZZZZZZ		5	15:30												
ZZZZZZ		1	15:34												
ZZZZZZ		1	15:39												
ZZZZZZ		1	15:43												
ZZZZZZ		1	15:48												
ZZZZZZ		1	15:52												
ZZZZZZ		1	15:57												
ZZZZZZ		1	16:02												
CCV		1	16:06	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
CCB		1	16:11	AL	BA	BE	CD CA CR CO CU FE PB MG MN	NI	K	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	16:15												
ZZZZZZ		1	16:20												
ZZZZZZ		1	16:24												
ZZZZZZ		1	16:29												
ZZZZZZ		1	16:34												

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Instrument ID: THERMO ICAP 6500 **File Name:** IBE09A

Date: 5/9/2011 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements													
ZZZZZZ		1	16:38														
ZZZZZZ		1	16:43														
SE2433-001	B200-MW01S-20110504	1	16:48	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN
SE2433-002	B200-MW01D-20110504	1	16:52	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN
SE2433-003	B200-MW02S-20110504	1	16:57	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN
CCV		1	17:01	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN
CCB		1	17:06	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN
SE2433-004	B200-MW02D-20110504	1	17:10	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	17:15														
ZZZZZZ		1	17:19														
ZZZZZZ		50	17:24														
ZZZZZZ		1	17:29														
ZZZZZZ		1	17:33														
ZZZZZZ		1	17:38														
ZZZZZZ		1	17:42														
ZZZZZZ		1	17:47														
ZZZZZZ		5	17:52														
CCV		1	17:56	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN
CCB		1	18:00	AL	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	TL	V	ZN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Instrument ID: THERMO ICAP 6500 **File Name:** IBE10A

Date: 5/10/2011 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements			
Blank		1	11:02	AL SB AS	CA	FE	MG
Std 1		1	11:07	AL SB AS	CA	FE	MG
ICV		1	11:11	AL SB AS	CA	FE	MG
ICB		1	11:16	AL SB AS	CA	FE	MG
PQL		1	11:20	AL SB AS	CA	FE	MG
ICSA		1	11:25	AL SB AS	CA	FE	MG
ICSAB		1	11:30	AL SB AS	CA	FE	MG
CCV		1	11:34	AL SB AS	CA	FE	MG
CCB		1	11:39	AL SB AS	CA	FE	MG
PBWBE05ICW0		1	11:43	SB AS			
LCSWBE05ICW0		1	11:48	SB AS			
SE2433-001	B200-MW01S-20110504	1	11:52	SB AS			
SE2433-002	B200-MW01D-20110504	1	11:57	SB AS			
SE2433-003	B200-MW02S-20110504	1	12:01	SB AS			
SE2433-004	B200-MW02D-20110504	1	12:06	SB AS			
ZZZZZZ		1	12:11				
ZZZZZZ		1	12:15				
ZZZZZZ		1	12:20				
ZZZZZZ		1	12:24				
CCV		1	12:29	AL SB AS	CA	FE	MG
CCB		1	12:33	AL SB AS	CA	FE	MG

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** BE06HGW0

Matrix: WATER **SDG Name:** JAX01

Method: CV **Prep Date:** 05/06/2011

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWBE06HGW0	LCSWBE06HGW0	0.025	0.025
PBWBE06HGW0	PBWBE06HGW0	0.025	0.025
B200-MW01S-20110504	SE2433-001	0.025	0.025
B200-MW01D-20110504	SE2433-002	0.025	0.025
B200-MW01D-20110504P	SE2433-002P	0.025	0.025
B200-MW01D-20110504S	SE2433-002S	0.025	0.025
B200-MW02S-20110504	SE2433-003	0.025	0.025
B200-MW02D-20110504	SE2433-004	0.025	0.025

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** BE05ICW0

Matrix: WATER **SDG Name:** JAX01

Method: P **Prep Date:** 05/05/2011

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWBE05ICW0	LCSWBE05ICW0	0.05	0.05
PBWBE05ICW0	PBWBE05ICW0	0.05	0.05
B200-MW01S-20110504	SE2433-001	0.05	0.05
B200-MW01D-20110504	SE2433-002	0.05	0.05
B200-MW02S-20110504	SE2433-003	0.05	0.05
B200-MW02D-20110504	SE2433-004	0.05	0.05

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWBE05ICW0

Matrix: WATER **SDG Name:** JAX01

QC Batch ID: BE05ICW0

Concentration Units : ug/L

Analyte	RESULT	C
ALUMINUM	14.800	U
ANTIMONY	1.280	U
ARSENIC	1.430	U
BARIUM	0.230	U
BERYLLIUM	0.100	U
CADMIUM	0.050	U
CALCIUM	144.500	B
CHROMIUM	0.360	U
COBALT	0.240	U
COPPER	0.630	U
IRON	16.370	I
LEAD	1.070	U
MAGNESIUM	7.824	I
MANGANESE	1.060	U
NICKEL	0.328	I
POTASSIUM	78.260	I
SELENIUM	2.360	U
SILVER	0.270	U
SODIUM	52.310	I
THALLIUM	1.070	U
VANADIUM	-0.256	I
ZINC	0.720	U

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: ICV

File: IBE09A May 09, 2011 12:59

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9786.00	97.9
BARIUM	400.0	389.20	97.3
BERYLLIUM	400.0	396.30	99.1
CADMIUM	400.0	402.00	100.5
CALCIUM	10000.0	9991.00	99.9
CHROMIUM	400.0	396.60	99.2
COBALT	400.0	400.20	100.1
COPPER	400.0	391.60	97.9
IRON	10000.0	10060.00	100.6
LEAD	400.0	405.40	101.3
MAGNESIUM	10000.0	10130.00	101.3
MANGANESE	400.0	397.40	99.3
NICKEL	400.0	397.40	99.3
POTASSIUM	13600.0	13510.00	99.3
SELENIUM	400.0	396.80	99.2
SILVER	400.0	407.40	101.8
SODIUM	10000.0	9862.00	98.6
THALLIUM	400.0	409.40	102.3
VANADIUM	400.0	394.00	98.5
ZINC	400.0	403.30	100.8

SAMPLE: CCV

File: IBE09A May 09, 2011 13:22

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12620.00	101.0
BARIUM	500.0	498.50	99.7
BERYLLIUM	500.0	497.50	99.5
CADMIUM	500.0	506.00	101.2
CALCIUM	12500.0	12650.00	101.2
CHROMIUM	500.0	498.90	99.8
COBALT	500.0	504.40	100.9
COPPER	500.0	497.20	99.4
IRON	12500.0	12710.00	101.7
LEAD	500.0	504.30	100.9
MAGNESIUM	12500.0	12730.00	101.8
MANGANESE	500.0	503.30	100.7
NICKEL	500.0	505.20	101.0
POTASSIUM	12500.0	12520.00	100.2
SELENIUM	500.0	493.30	98.7
SILVER	500.0	501.70	100.3
SODIUM	12500.0	12590.00	100.7
THALLIUM	500.0	507.80	101.6
VANADIUM	500.0	497.70	99.5
ZINC	500.0	502.50	100.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: CCV

File: IBE09A May 09, 2011 14:17

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12620.00	101.0
BARIUM	500.0	495.00	99.0
BERYLLIUM	500.0	497.80	99.6
CADMIUM	500.0	503.40	100.7
CALCIUM	12500.0	12730.00	101.8
CHROMIUM	500.0	504.10	100.8
COBALT	500.0	503.70	100.7
COPPER	500.0	495.00	99.0
IRON	12500.0	12750.00	102.0
LEAD	500.0	508.30	101.7
MAGNESIUM	12500.0	12590.00	100.7
MANGANESE	500.0	504.50	100.9
NICKEL	500.0	503.50	100.7
POTASSIUM	12500.0	12460.00	99.7
SELENIUM	500.0	492.90	98.6
SILVER	500.0	502.50	100.5
SODIUM	12500.0	11690.00	93.5
THALLIUM	500.0	506.90	101.4
VANADIUM	500.0	504.20	100.8
ZINC	500.0	506.80	101.4

SAMPLE: CCV

File: IBE09A May 09, 2011 15:11

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12620.00	101.0
BARIUM	500.0	495.80	99.2
BERYLLIUM	500.0	496.70	99.3
CADMIUM	500.0	508.50	101.7
CALCIUM	12500.0	12880.00	103.0
CHROMIUM	500.0	500.50	100.1
COBALT	500.0	502.50	100.5
COPPER	500.0	494.10	98.8
IRON	12500.0	12700.00	101.6
LEAD	500.0	504.10	100.8
MAGNESIUM	12500.0	12700.00	101.6
MANGANESE	500.0	501.20	100.2
NICKEL	500.0	504.70	100.9
POTASSIUM	12500.0	12590.00	100.7
SELENIUM	500.0	492.50	98.5
SILVER	500.0	506.50	101.3
SODIUM	12500.0	12450.00	99.6
THALLIUM	500.0	506.60	101.3
VANADIUM	500.0	503.20	100.6
ZINC	500.0	505.00	101.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: CCV

File: IBE09A May 09, 2011 16:06

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12780.00	102.2
BARIUM	500.0	495.60	99.1
BERYLLIUM	500.0	502.00	100.4
CADMIUM	500.0	505.90	101.2
CALCIUM	12500.0	12720.00	101.8
CHROMIUM	500.0	503.20	100.6
COBALT	500.0	503.20	100.6
COPPER	500.0	495.50	99.1
IRON	12500.0	12810.00	102.5
LEAD	500.0	505.90	101.2
MAGNESIUM	12500.0	12680.00	101.4
MANGANESE	500.0	506.10	101.2
NICKEL	500.0	504.70	100.9
POTASSIUM	12500.0	12640.00	101.1
SELENIUM	500.0	495.10	99.0
SILVER	500.0	505.80	101.2
SODIUM	12500.0	12600.00	100.8
THALLIUM	500.0	504.80	101.0
VANADIUM	500.0	505.80	101.2
ZINC	500.0	506.40	101.3

SAMPLE: CCV

File: IBE09A May 09, 2011 17:01

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12690.00	101.5
BARIUM	500.0	497.00	99.4
BERYLLIUM	500.0	499.60	99.9
CADMIUM	500.0	504.60	100.9
CALCIUM	12500.0	12710.00	101.7
CHROMIUM	500.0	503.30	100.7
COBALT	500.0	503.40	100.7
COPPER	500.0	496.50	99.3
IRON	12500.0	12780.00	102.2
LEAD	500.0	507.60	101.5
MAGNESIUM	12500.0	12650.00	101.2
MANGANESE	500.0	504.70	100.9
NICKEL	500.0	504.40	100.9
POTASSIUM	12500.0	12630.00	101.0
SELENIUM	500.0	494.30	98.9
SILVER	500.0	504.10	100.8
SODIUM	12500.0	12420.00	99.4
THALLIUM	500.0	507.90	101.6
VANADIUM	500.0	504.20	100.8
ZINC	500.0	507.30	101.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: CCV

File: IBE09A May 09, 2011 17:56

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12750.00	102.0
BARIUM	500.0	498.30	99.7
BERYLLIUM	500.0	500.50	100.1
CADMIUM	500.0	507.30	101.5
CALCIUM	12500.0	12700.00	101.6
CHROMIUM	500.0	503.40	100.7
COBALT	500.0	505.90	101.2
COPPER	500.0	498.00	99.6
IRON	12500.0	12780.00	102.2
LEAD	500.0	510.80	102.2
MAGNESIUM	12500.0	12720.00	101.8
MANGANESE	500.0	504.80	101.0
NICKEL	500.0	507.20	101.4
POTASSIUM	12500.0	12640.00	101.1
SELENIUM	500.0	495.20	99.0
SILVER	500.0	505.70	101.1
SODIUM	12500.0	12540.00	100.3
THALLIUM	500.0	513.10	102.6
VANADIUM	500.0	506.60	101.3
ZINC	500.0	509.00	101.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: ICB
File: IBE09A May 09, 2011 13:03

Analyte	Result	C
ALUMINUM	11.320	U
BARIUM	0.270	U
BERYLLIUM	0.070	U
CADMIUM	0.250	U
CALCIUM	10.060	U
CHROMIUM	0.670	U
COBALT	0.630	U
COPPER	0.530	U
IRON	2.620	U
LEAD	1.630	U
MAGNESIUM	4.330	U
MANGANESE	1.010	U
NICKEL	0.640	U
POTASSIUM	31.100	I
SELENIUM	5.690	U
SILVER	0.540	U
SODIUM	15.390	I
THALLIUM	3.490	U
VANADIUM	0.500	U
ZINC	0.380	U

SAMPLE: CCB
File: IBE09A May 09, 2011 13:27

Analyte	Result	C
ALUMINUM	11.320	U
BARIUM	0.270	U
BERYLLIUM	0.070	U
CADMIUM	0.250	U
CALCIUM	10.060	U
CHROMIUM	0.670	U
COBALT	0.630	U
COPPER	0.530	U
IRON	2.620	U
LEAD	1.630	U
MAGNESIUM	4.330	U
MANGANESE	1.010	U
NICKEL	0.640	U
POTASSIUM	25.520	U
SELENIUM	5.690	U
SILVER	0.540	U
SODIUM	14.360	I
THALLIUM	3.490	U
VANADIUM	0.500	U
ZINC	0.380	U

SAMPLE: CCB
File: IBE09A May 09, 2011 14:21

Analyte	Result	C
ALUMINUM	11.320	U
BARIUM	0.270	U
BERYLLIUM	0.070	U
CADMIUM	0.250	U
CALCIUM	10.060	U
CHROMIUM	0.670	U
COBALT	0.630	U
COPPER	0.530	U
IRON	2.620	U
LEAD	1.630	U
MAGNESIUM	4.330	U
MANGANESE	1.010	U
NICKEL	0.640	U
POTASSIUM	75.700	I
SELENIUM	5.690	U
SILVER	0.540	U
SODIUM	77.600	I
THALLIUM	3.490	U
VANADIUM	0.500	U
ZINC	0.380	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: CCB
File: IBE09A May 09, 2011 15:16

Analyte	Result	C
ALUMINUM	11.320	U
BARIUM	0.270	U
BERYLLIUM	0.070	U
CADMIUM	0.250	U
CALCIUM	10.060	U
CHROMIUM	0.670	U
COBALT	0.630	U
COPPER	0.530	U
IRON	4.135	I
LEAD	1.630	U
MAGNESIUM	4.330	U
MANGANESE	1.010	U
NICKEL	0.640	U
POTASSIUM	77.250	I
SELENIUM	5.690	U
SILVER	0.540	U
SODIUM	40.350	I
THALLIUM	3.490	U
VANADIUM	0.500	U
ZINC	0.380	U

SAMPLE: CCB
File: IBE09A May 09, 2011 16:11

Analyte	Result	C
ALUMINUM	11.320	U
BARIUM	0.270	U
BERYLLIUM	0.070	U
CADMIUM	0.250	U
CALCIUM	10.060	U
CHROMIUM	0.670	U
COBALT	0.630	U
COPPER	0.530	U
IRON	2.620	U
LEAD	1.630	U
MAGNESIUM	4.330	U
MANGANESE	1.010	U
NICKEL	0.640	U
POTASSIUM	25.520	U
SELENIUM	5.690	U
SILVER	0.540	U
SODIUM	18.510	I
THALLIUM	3.490	U
VANADIUM	0.500	U
ZINC	0.380	U

SAMPLE: CCB
File: IBE09A May 09, 2011 17:06

Analyte	Result	C
ALUMINUM	11.320	U
BARIUM	0.270	U
BERYLLIUM	0.070	U
CADMIUM	0.250	U
CALCIUM	10.060	U
CHROMIUM	0.670	U
COBALT	0.630	U
COPPER	0.530	U
IRON	3.585	I
LEAD	1.630	U
MAGNESIUM	4.330	U
MANGANESE	1.010	U
NICKEL	0.640	U
POTASSIUM	25.520	U
SELENIUM	5.690	U
SILVER	0.540	U
SODIUM	26.950	I
THALLIUM	3.490	U
VANADIUM	0.500	U
ZINC	0.380	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: CCB

File: IBE09A May 09, 2011 18:00

Analyte	Result	C
ALUMINUM	11.320	U
BARIUM	0.270	U
BERYLLIUM	0.070	U
CADMIUM	0.250	U
CALCIUM	10.060	U
CHROMIUM	0.670	U
COBALT	0.630	U
COPPER	0.530	U
IRON	3.945	I
LEAD	1.630	U
MAGNESIUM	4.330	U
MANGANESE	1.010	U
NICKEL	0.640	U
POTASSIUM	25.520	U
SELENIUM	5.690	U
SILVER	0.540	U
SODIUM	25.670	I
THALLIUM	3.490	U
VANADIUM	0.500	U
ZINC	0.380	U

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: PQL

File: IBE09A May 09, 2011 13:08

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	303.50	101.2
BARIUM	5.0	4.91	98.2
BERYLLIUM	5.0	4.95	99.0
CADMIUM	5.0	5.11	102.2
CALCIUM	100.0	97.38	97.4
CHROMIUM	10.0	9.69	96.9
COBALT	10.0	10.26	102.6
COPPER	25.0	24.95	99.8
IRON	100.0	101.10	101.1
LEAD	5.0	4.95	99.0
MAGNESIUM	100.0	103.60	103.6
MANGANESE	5.0	5.01	100.2
NICKEL	10.0	10.44	104.4
POTASSIUM	1000.0	1004.00	100.4
SELENIUM	10.0	8.13	81.3
SILVER	10.0	10.31	103.1
SODIUM	1000.0	999.80	100.0
THALLIUM	15.0	14.72	98.1
VANADIUM	10.0	9.77	97.7
ZINC	20.0	20.23	101.2

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: ICSA

File: IBE09A May 09, 2011 13:13

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	510800	102.2
BARIUM	0	2	
BERYLLIUM	0	0	
CADMIUM	0	-3	
CALCIUM	500000	476500	95.3
CHROMIUM	3	3	
COBALT	1	-2	
COPPER	0	0	
IRON	200000	189000	94.5
LEAD	0	1	
MAGNESIUM	500000	475400	95.1
MANGANESE	2	-1	
NICKEL	0	2	
POTASSIUM	0	10	
SELENIUM	0	-2	
SILVER	0	-1	
SODIUM	0	-5	
THALLIUM	0	0	
VANADIUM	0	0	
ZINC	0	4	

SAMPLE: ICSAB

File: IBE09A May 09, 2011 13:17

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	502400	100.5
BARIUM	500	465	93.0
BERYLLIUM	500	495	99.0
CADMIUM	1000	948	94.8
CALCIUM	500000	472100	94.4
CHROMIUM	500	483	96.6
COBALT	500	466	93.2
COPPER	500	531	106.2
IRON	200000	185100	92.5
LEAD	50	45	90.0
MAGNESIUM	500000	473600	94.7
MANGANESE	502	479	95.4
NICKEL	1000	913	91.3
POTASSIUM	20000	21720	108.6
SELENIUM	50	48	96.0
SILVER	200	222	111.0
SODIUM	20000	21970	109.9
THALLIUM	100	92	92.0
VANADIUM	500	487	97.4
ZINC	1000	934	93.4

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWBE05ICW0

Matrix: WATER **SDG Name:** JAX01

QC Batch ID: BE05ICW0

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ALUMINUM	2000.0	2048.00	102.4	80	120
ANTIMONY	100.0	97.32	97.3	80	120
ARSENIC	100.0	101.20	101.2	80	120
BARIUM	2000.0	2083.00	104.2	80	120
BERYLLIUM	50.0	53.32	106.6	80	120
CADMIUM	250.0	263.30	105.3	80	120
CALCIUM	2500.0	2683.00	107.3	80	120
CHROMIUM	200.0	212.10	106.1	80	120
COBALT	500.0	531.10	106.2	80	120
COPPER	250.0	261.90	104.8	80	120
IRON	1000.0	1079.00	107.9	80	120
LEAD	100.0	105.20	105.2	80	120
MAGNESIUM	5000.0	5307.00	106.1	80	120
MANGANESE	500.0	523.80	104.8	80	120
NICKEL	500.0	533.10	106.6	80	120
POTASSIUM	10000.0	10380.00	103.8	80	120
SELENIUM	100.0	99.51	99.5	80	120
SILVER	50.0	52.74	105.5	80	120
SODIUM	7500.0	7760.00	103.5	80	120
THALLIUM	100.0	104.20	104.2	80	120
VANADIUM	500.0	529.50	105.9	80	120
ZINC	500.0	538.30	107.7	80	120

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 2/17/2011

Concentration Units: ug/L

Analyte	CRDL	IDL	M
ALUMINUM	300	11.32	P
ANTIMONY	8.0	1.85	P
ARSENIC	8.0	2.55	P
BARIUM	5.0	0.27	P
BERYLLIUM	5.0	0.07	P
CADMIUM	10	0.25	P
CALCIUM	100	10.06	P
CHROMIUM	15	0.67	P
COBALT	30	0.63	P
COPPER	25	0.53	P
IRON	100	2.62	P
LEAD	5.0	1.63	P
MAGNESIUM	100	4.33	P
MANGANESE	5.0	1.01	P
NICKEL	40	0.64	P
POTASSIUM	1000	25.52	P
SELENIUM	10	5.69	P
SILVER	15	0.54	P
SODIUM	1000	13.06	P
THALLIUM	15	3.49	P
VANADIUM	25	0.50	P
ZINC	25	0.38	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 1/19/2011

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ALUMINUM	100.00	ug/L	P	SW846 3010A / 6010/200.7
ANTIMONY	5.00	ug/L	P	SW846 3010A / 6010/200.7
ARSENIC	5.00	ug/L	P	SW846 3010A / 6010/200.7
BARIUM	3.00	ug/L	P	SW846 3010A / 6010/200.7
BERYLLIUM	0.50	ug/L	P	SW846 3010A / 6010/200.7
CADMIUM	3.00	ug/L	P	SW846 3010A / 6010/200.7
CALCIUM	80.00	ug/L	P	SW846 3010A / 6010/200.7
CHROMIUM	4.00	ug/L	P	SW846 3010A / 6010/200.7
COBALT	4.00	ug/L	P	SW846 3010A / 6010/200.7
COPPER	10.00	ug/L	P	SW846 3010A / 6010/200.7
IRON	80.00	ug/L	P	SW846 3010A / 6010/200.7
LEAD	4.00	ug/L	P	SW846 3010A / 6010/200.7
MAGNESIUM	80.00	ug/L	P	SW846 3010A / 6010/200.7
MANGANESE	4.00	ug/L	P	SW846 3010A / 6010/200.7
NICKEL	4.00	ug/L	P	SW846 3010A / 6010/200.7
POTASSIUM	500.00	ug/L	P	SW846 3010A / 6010/200.7
SELENIUM	7.00	ug/L	P	SW846 3010A / 6010/200.7
SILVER	4.00	ug/L	P	SW846 3010A / 6010/200.7
SODIUM	500.00	ug/L	P	SW846 3010A / 6010/200.7
THALLIUM	5.00	ug/L	P	SW846 3010A / 6010/200.7
VANADIUM	4.00	ug/L	P	SW846 3010A / 6010/200.7
ZINC	10.00	ug/L	P	SW846 3010A / 6010/200.7

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 1/19/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ALUMINUM	14.80	ug/L	P	SW846 3010A / SW846 6010B
ANTIMONY	1.28	ug/L	P	SW846 3010A / SW846 6010B
ARSENIC	1.43	ug/L	P	SW846 3010A / SW846 6010B
BARIUM	0.23	ug/L	P	SW846 3010A / SW846 6010B
BERYLLIUM	0.10	ug/L	P	SW846 3010A / SW846 6010B
CADMIUM	0.05	ug/L	P	SW846 3010A / SW846 6010B
CALCIUM	11.20	ug/L	P	SW846 3010A / SW846 6010B
CHROMIUM	0.36	ug/L	P	SW846 3010A / SW846 6010B
COBALT	0.24	ug/L	P	SW846 3010A / SW846 6010B
COPPER	0.63	ug/L	P	SW846 3010A / SW846 6010B
IRON	5.42	ug/L	P	SW846 3010A / SW846 6010B
LEAD	1.07	ug/L	P	SW846 3010A / SW846 6010B
MAGNESIUM	7.80	ug/L	P	SW846 3010A / SW846 6010B
MANGANESE	1.06	ug/L	P	SW846 3010A / SW846 6010B
NICKEL	0.28	ug/L	P	SW846 3010A / SW846 6010B
POTASSIUM	41.00	ug/L	P	SW846 3010A / SW846 6010B
SELENIUM	2.36	ug/L	P	SW846 3010A / SW846 6010B
SILVER	0.27	ug/L	P	SW846 3010A / SW846 6010B
SODIUM	23.72	ug/L	P	SW846 3010A / SW846 6010B
THALLIUM	1.07	ug/L	P	SW846 3010A / SW846 6010B
VANADIUM	0.23	ug/L	P	SW846 3010A / SW846 6010B
ZINC	0.72	ug/L	P	SW846 3010A / SW846 6010B

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name: JAX01**

Concentration Units: ug/L

SAMPLE: ICV

File: IBE10A May 10, 2011 11:11

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9659.00	96.6
ANTIMONY	400.0	391.80	98.0
ARSENIC	400.0	392.00	98.0
CALCIUM	10000.0	9968.00	99.7
IRON	10000.0	9967.00	99.7
MAGNESIUM	10000.0	10160.00	101.6

SAMPLE: CCV

File: IBE10A May 10, 2011 11:34

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12540.00	100.3
ANTIMONY	500.0	494.30	98.9
ARSENIC	500.0	493.40	98.7
CALCIUM	12500.0	12820.00	102.6
IRON	12500.0	12650.00	101.2
MAGNESIUM	12500.0	12670.00	101.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: CCV

File: IBE10A May 10, 2011 12:29

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12620.00	101.0
ANTIMONY	500.0	498.70	99.7
ARSENIC	500.0	493.80	98.8
CALCIUM	12500.0	12750.00	102.0
IRON	12500.0	12620.00	101.0
MAGNESIUM	12500.0	12840.00	102.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: PQL

File: IBE10A May 10, 2011 11:20

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	306.50	102.2
ANTIMONY	8.0	7.18	89.8
ARSENIC	8.0	8.42	105.3
CALCIUM	100.0	100.20	100.2
IRON	100.0	99.79	99.8
MAGNESIUM	100.0	100.90	100.9

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: ICB

File: IBE10A May 10, 2011 11:16

Analyte	Result	C
ALUMINUM	11.320	U
ANTIMONY	1.850	U
ARSENIC	2.550	U
CALCIUM	10.060	U
IRON	2.620	U
MAGNESIUM	4.330	U

SAMPLE: CCB

File: IBE10A May 10, 2011 11:39

Analyte	Result	C
ALUMINUM	11.320	U
ANTIMONY	1.979	I
ARSENIC	2.550	U
CALCIUM	10.060	U
IRON	2.620	U
MAGNESIUM	4.330	U

SAMPLE: CCB

File: IBE10A May 10, 2011 12:33

Analyte	Result	C
ALUMINUM	11.320	U
ANTIMONY	1.850	U
ARSENIC	2.550	U
CALCIUM	10.060	U
IRON	2.620	U
MAGNESIUM	4.330	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: ICSA

File: IBE10A May 10, 2011 11:25

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	510000	102.0
ANTIMONY	0	5	
ARSENIC	0	1	
CALCIUM	500000	473400	94.7
IRON	200000	187800	93.9
MAGNESIUM	500000	477900	95.6

SAMPLE: ICSAB

File: IBE10A May 10, 2011 11:30

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	503200	100.6
ANTIMONY	600	618	103.0
ARSENIC	100	103	103.0
CALCIUM	500000	479800	96.0
IRON	200000	187700	93.8
MAGNESIUM	500000	473300	94.7

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name: JAX01**

Concentration Units: ug/L

SAMPLE: ICV

File: HBE09A May 09, 2011 15:14

Analyte	True	Found	%R (1)
MERCURY	6.0	6.12	102.0

SAMPLE: CCV

File: HBE09A May 09, 2011 15:40

Analyte	True	Found	%R (1)
MERCURY	5.0	5.30	106.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: CCV

File: HBE09A May 09, 2011 16:05

Analyte	True	Found	%R (1)
MERCURY	5.0	5.39	107.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWBE06HGW0

Matrix: WATER **SDG Name:** JAX01

QC Batch ID: BE06HGW0

Concentration Units : ug/L

Analyte	RESULT	C
MERCURY	-0.026	I

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: ICB

File: HBE09A May 09, 2011 15:16

Analyte	Result	C
MERCURY	0.030	U

SAMPLE: CCB

File: HBE09A May 09, 2011 15:42

Analyte	Result	C
MERCURY	0.030	U

SAMPLE: CCB

File: HBE09A May 09, 2011 16:07

Analyte	Result	C
MERCURY	0.030	U

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Concentration Units: ug/L

SAMPLE: PQL

File: HBE09A May 09, 2011 15:19

Analyte	TRUE	FOUND	% R
MERCURY	0.2	0.19	95.0

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Matrix: WATER

Percent Solids: 0.00

Client Field ID: B200-MW01D-20110504S

SDG Name: JAX01

Lab Sample ID: SE2433-002P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
MERCURY, TOTAL	1.1070		-0.0010	U	1	110.7		80	120	CV

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Matrix: WATER

Percent Solids: 0.00

Client Field ID: B200-MW01D-20110504S

SDG Name: JAX01

Lab Sample ID: SE2433-002S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
MERCURY, TOTAL	1.0990		-0.0010	U	1	109.9		80	120	CV

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services
Client Field ID: B200-MW01D-20110504

Matrix: WATER
SDG Name: JAX01

Percent Solids: 0.00
Lab Sample ID: SE2433-002

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
MERCURY, TOTAL		1.0990		1.1070		0.7		CV

Comments:

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWBE06HGW0

Matrix: WATER **SDG Name:** JAX01

QC Batch ID: BE06HGW0

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.0	5.37	107.4	80	120

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** B200-MW01D-20110504L

Matrix: WATER **SDG Name:** JAX01

Lab Sample ID: SE2433-002L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
MERCURY, TOTAL	0.00	U	0.00	U			CV

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 1/7/2011

Concentration Units: ug/L

Analyte	CRDL	IDL	M
MERCURY	0.20	0.03	CV

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 2/9/2011

Analyte	LOD	Units	M	EPA Prep./Anal. Method
MERCURY	0.10	ug/L	CV	SW846 7470A / 7470

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 2/9/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
MERCURY	0.01	ug/L	CV	SW846 7470A / SW846 7470A

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX01

Instrument Name THERMO ICAP 6500 **Instrument ID:** I **Date:** 4/29/2011

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	As	Cr	Co	Cu	Mn	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0002086	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0429115	0.0	0.0	0.0
ANTIMONY	206.88	0.0000122	0.0	0.0000328	0.0	-0.0001492	0.0127235	0.0	0.0	0.0	-0.0003049	-0.0005901	0.0	-0.0014750
ARSENIC	189.04	0.0000070	0.0	-0.0001627	0.0	0.0	0.0005362	0.0	0.0	0.0	0.0009188	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0005721	0.0001425
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0377834	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0003106	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0000800	0.0	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0	0.0	-0.0009160	0.0	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000059	0.0	0.0	0.0	0.0	0.0	0.0001110	0.0	0.0	0.0	0.0000720
COBALT	228.62	0.0	0.0	0.0000151	0.0	0.0	-0.0000930	0.0	0.0	0.0	0.0	0.0002140	0.0021732	0.0
COPPER	327.40	0.0	0.0	-0.0000222	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006350	0.0001092
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LEAD	220.35	-0.0001215	0.0	0.0000341	0.0	0.0	0.0	0.0000540	0.0000406	0.0	-0.0012070	0.0002080	-0.0000711	0.0
LITHIUM	670.78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAGNESIUM	202.50	0.0	0.0	0.0001162	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0003128	0.0
MANGANESE	257.61	0.0000009	0.0	0.0000138	-0.0000037	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0001080	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001920
NICKEL	231.60	0.0	0.0	-0.0000509	0.0	0.0	0.0	0.0000689	0.0	0.0	0.0027299	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000289	0.0	0.0000050	0.0	-0.0001745	0.0	-0.0001909	0.0	0.0002049	0.0	0.0	0.0	-0.0001715
SILICON	251.61	0.0	0.0	-0.0001166	0.0	0.0	0.0	0.0	0.0	0.0	0.0115903	0.0	0.0009942	0.0
SILVER	328.07	0.0	0.0	-0.0003802	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0002850	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STRONTIUM	421.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000038	0.0	-0.0000002	0.0	0.0	0.0	0.0032040	0.0001434	-0.0010500	0.0000740	0.0	-0.0006398	0.0001102
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001287	0.0	0.0	0.0	0.0004768	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000149	0.0	0.0	-0.0013158	0.0	0.0	-0.0008201	-0.0081695	0.0	0.0003853	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0011406	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 4/29/2011

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	1000000	P
ANTIMONY	45.00	20000	P
ARSENIC	45.00	20000	P
BARIUM	5.00	20000	P
BERYLLIUM	5.00	20000	P
CADMIUM	45.00	20000	P
CALCIUM	5.00	1000000	P
CHROMIUM	10.00	20000	P
COBALT	45.00	20000	P
COPPER	10.00	20000	P
IRON	5.00	300000	P
LEAD	45.00	20000	P
MAGNESIUM	45.00	1000000	P
MANGANESE	5.00	20000	P
NICKEL	10.00	20000	P
POTASSIUM	5.00	500000	P
SELENIUM	45.00	20000	P
SILVER	10.00	2000	P
SODIUM	5.00	300000	P
THALLIUM	45.00	20000	P
VANADIUM	10.00	20000	P
ZINC	45.00	20000	P

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. PATE** **DATE:** **AUGUST 8, 2011**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NAS JACKSONVILLE, CTO 0112
SAMPLE DELIVERY GROUP (SDG) – JAX02

SAMPLES: 31 / Aqueous / VOC

JAX45-DPT-DUP01-12-06202011	JAX45-DPT-DUP02-40-06212011	
JAX45-DPT12-12-06202011	JAX45-DPT12-20-06202011	JAX45-DPT12-40-06202011
JAX45-DPT12-60-06202011	JAX45-DPT13-12-06202011	JAX45-DPT13-20-06202011
JAX45-DPT13-40-06202011	JAX45-DPT13-60-06202011	JAX45-DPT14-12-06202011
JAX45-DPT14-20-06202011	JAX45-DPT14-40-06202011	JAX45-DPT14-60-06202011
JAX45-DPT15-12-06202111	JAX45-DPT15-20-06202111	JAX45-DPT15-40-06202111
JAX45-DPT15-60-06202111	JAX45-DPT16-12-06202111	JAX45-DPT16-20-06202111
JAX45-DPT16-40-06202111	JAX45-DPT16-60-06202111	JAX45-DPT17-12-06202111
JAX45-DPT17-20-06202111	JAX45-DPT17-40-06202111	JAX45-DPT17-60-06202111
JAX45-DPT18-12-06202111	JAX45-DPT18-20-06202111	JAX45-DPT18-40-06202111
JAX45-DPT18-60-06202111	TB-01	

Overview

The sample set for NAS Jacksonville, CTO 0112, SDG JAX02 consisted of thirty-one (31) aqueous samples including one (1) aqueous QC trip blank sample. The samples were analyzed for volatile organic compounds (VOC) as indicated above. Two field duplicate sample pairs were included in the Sample Delivery Group (SDG); JAX45-DPT-DUP01-12-06202011 / JAX45-DPT14-12-06202011 and JAX45-DPT-DUP02-40-06212011 / JAX45-DPT18-40-06202111.

The samples were collected by Tetra Tech NUS on June 20 and 21, 2011 and analyzed by Katahdin Analytical Services Inc. The analysis was conducted in accordance with SW-846 Method 8260B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
• Initial and Continuing Calibration
* • Laboratory Blank Analyses
* • Field Duplicate Precision
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

VOC

The initial calibration relative standard deviation (RSD) was greater than the 15% quality control limit for acetone on instrument GCMS-D on 06/23/11.

Affecting samples: All SDG samples

Action: The positive and non-detected results for acetone for the aforementioned samples were qualified estimated, (J) and (UJ), respectively.

The continuing calibration verification (CCV) percent difference (%D) was greater than the 20% quality control limit for chloroethane and 2-butanone for instrument GCMS-D on 06/24/11 @ 09:07.

Affecting samples:

JAX45-DPT13-40-06202011DL	JAX45-DPT13-20-06202011DL	JAX45-DPT13-12-06202011
JAX45-DPT15-60-06202111	JAX45-DPT15-40-06202111	JAX45-DPT15-20-06202111
JAX45-DPT15-12-06202111	JAX45-DPT16-60-06202111	JAX45-DPT16-40-06202111
JAX45-DPT16-20-06202111	JAX45-DPT16-12-06202111	JAX45-DPT17-60-06202111
JAX45-DPT17-40-06202111	JAX45-DPT17-20-06202111	JAX45-DPT17-12-06202111

Action: The positive and non-detected results for 2-butanone for the aforementioned samples were qualified estimated, (J) and (UJ), respectively. The non-detected results for chloroethane for the aforementioned samples were qualified estimate, (UJ). Sample 2-butanone and chloroethane results for samples JAX45-DPT13-40-06202011DL and JAX45-DPT13-20-06202011DL were not qualified as they were reported from the undiluted samples.

The continuing calibration verification (CCV) percent difference (%D) was greater than the 20% quality control limit for chloroethane and 2-butanone for instrument GCMS-D on 06/24/11 @ 09:07.

Affecting samples:

TB-01	JAX45-DPT-DUP02-40-06212011	JAX45-DPT18-40-06202111
JAX45-DPT18-20-06202111	JAX45-DPT18-60-06202111	JAX45-DPT18-12-06202111

Action: The non-detected results for 2-butanone and chloroethane for the aforementioned samples were qualified estimated, (UJ).

Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, (J).

Additional Comments

The laboratory abbreviated sample designations throughout the laboratory report due to laboratory software limitations. Sample name prefixes were truncated for most of the samples.

It was noted that many sample dates were incorrect on the laboratory forms. From the laboratory narrative; "The date on the computer used to collect data from the "D" instrument was not the actual date for these samples and QC. The time on the computer was correct, but the date was off by several weeks. Consequently, the dates stamped on the quantitation reports, ROAs and QC summary reports for this job are incorrect. Forms that indicate the date of 01-AUG-11 should be 23-JUN-11, those that indicate 02-AUG-11 should be 24-JUN-11 and those that indicate 03-AUG-11 should be 25-JUN-11. This was no noticed until final review, and due to software security measures, the timestamps could not be altered."

VOC sample JAX45-DPT13-40-06202011 was analyzed undiluted, and also at a 10X dilution in order to quantify chloroform and carbon tetrachloride results which exceeded the highest calibration level in the undiluted sample analysis. Chloroform and carbon tetrachloride results were reported from the 10X dilution. All VOC other analytes were reported from the undiluted sample analysis.

VOC sample JAX45-DPT13-20-06202011 was analyzed undiluted, and also at a 4X dilution in order to quantify the chloroform result which exceeded the highest calibration level in the undiluted sample analysis. The chloroform result was reported from the 4X dilution. All VOC other analytes were reported from the undiluted sample analysis. Non-detected results were reported to the minimum detection limit (MDL).

Executive Summary

Laboratory Performance: The acetone VOC initial calibration RSD was greater than the quality control limit which resulted in the qualification of all acetone results. VOC CCV %D quality control limit non-compliances resulted in qualification of VOC analytes.

Other Factors Affecting Data Quality: Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, (J).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), USEPA Method SW-846 8260B, and Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 01511 SDG: JAX02 FRACTION: OV MEDIA: WATER	NSAMPLE	JAX45-DPT12-12-06202011			JAX45-DPT12-20-06202011			JAX45-DPT12-40-06202011			JAX45-DPT12-60-06202011		
	LAB_ID	SE3574-4			SE3574-3			SE3574-2			SE3574-1		
	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011			6/20/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE		7.9			4.2			6.8			0.21	U	
1,1-DICHLOROETHENE		56			40			67			0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		47			37			65			0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		2.2	UJ	C	2.2	UJ	C	2.2	UJ	C	2.2	UJ	C
BENZENE		0.34	J	P	0.76	J	P	0.36	J	P	0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.38	J	P	0.25	U		0.35	J	P	0.25	U	
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	U		0.55	U		0.55	U		0.55	U	
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.36	U		0.36	U		0.36	U		0.36	U	
CIS-1,2-DICHLOROETHENE		150			46			34			0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	U		0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT12-12-06202011			JAX45-DPT12-20-06202011			JAX45-DPT12-40-06202011			JAX45-DPT12-60-06202011		
SDG: JAX02	LAB_ID	SE3574-4			SE3574-3			SE3574-2			SE3574-1		
FRACTION: OV	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		7.7			0.64	J	P	0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		4.7			21			46			0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		5.5			1.1	J	P	0.54	J	P	0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT13-12-06202011			JAX45-DPT13-20-06202011			JAX45-DPT13-20-06202011DL			JAX45-DPT13-40-06202011		
SDG: JAX02	LAB_ID	SE3574-8			SE3574-7			SE3574-7DL			SE3574-6		
FRACTION: OV	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U					0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U					0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U					0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U					0.31	U	
1,1-DICHLOROETHANE		4.2			2						0.21	U	
1,1-DICHLOROETHENE		6.5			3.2						0.44	J	P
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U					0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U					0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U					0.22	U	
1,2-DICHLOROBENZENE		0.36	J	P	0.15	U					0.15	U	
1,2-DICHLOROETHANE		3.2			1.6						0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U					0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U					0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U					0.24	U	
2-BUTANONE		1.3	UJ	C	1.3	U					1.3	U	
2-HEXANONE		1.7	U		1.7	U					1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U					1.3	U	
ACETONE		2.2	UJ	C	3.3	J	CP				2.2	UJ	C
BENZENE		0.41	J	P	0.32	J	P				0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U					0.33	U	
BROMOFORM		0.23	U		0.23	U					0.23	U	
BROMOMETHANE		0.49	U		0.49	U					0.49	U	
CARBON DISULFIDE		0.56	J	P	0.46	J	P				2.8		
CARBON TETRACHLORIDE		0.95	J	P	54								
CHLOROBENZENE		0.22	U		0.22	U					0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U					0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	U					0.55	U	
CHLOROFORM		5.8						500					
CHLOROMETHANE		0.62	J	P	0.36	U					0.36	U	
CIS-1,2-DICHLOROETHENE		43			21						0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U					0.19	U	
CYCLOHEXANE		0.31	U		0.31	U					0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U					0.24	U	
ETHYLBENZENE		0.21	U		0.21	U					0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U					0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT13-12-06202011			JAX45-DPT13-20-06202011			JAX45-DPT13-20-06202011DL			JAX45-DPT13-40-06202011		
SDG: JAX02	LAB_ID	SE3574-8			SE3574-7			SE3574-7DL			SE3574-6		
FRACTION: OV	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U					0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U					0.4	J	P
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U					0.36	U	
METHYLENE CHLORIDE		1.1	U		1.7	J	P				6.1		
STYRENE		0.23	U		0.23	U					0.23	U	
TETRACHLOROETHENE		0.4	U		5.4						13		
TOLUENE		0.27	U		1.3						4.6		
TOTAL XYLENES		0.25	U		0.25	U					6.2		
TRANS-1,2-DICHLOROETHENE		4.2			1.4						0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U					0.2	U	
TRICHLOROETHENE		24			11						0.4	J	P
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U					0.24	U	
VINYL CHLORIDE		2.9			1.2	J	P				0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT13-40-06202011DL	JAX45-DPT13-60-06202011	JAX45-DPT14-12-06202011	JAX45-DPT14-20-06202011
SDG: JAX02	LAB_ID	SE3574-6DL	SE3574-5	SE3574-12	SE3574-11
FRACTION: OV	SAMP_DATE	6/20/2011	6/20/2011	6/20/2011	6/20/2011
MEDIA: WATER	QC_TYPE	NM	NM	NM	NM
	UNITS	UG/L	UG/L	UG/L	UG/L
	PCT_SOLIDS	0.0	0.0	0.0	0.0
	DUP_OF				

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE				0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE				0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE				0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE				0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE				0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE				0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE				0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE				0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE				0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE				0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE				0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE				0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE				0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE				0.24	U		0.24	U		0.24	U	
2-BUTANONE				1.3	U		1.3	U		1.3	U	
2-HEXANONE				1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE				1.3	U		1.3	U		1.3	U	
ACETONE				2.2	UJ	C	2.2	UJ	C	2.8	J	CP
BENZENE				0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE				0.33	U		0.33	U		0.33	U	
BROMOFORM				0.23	U		0.23	U		0.23	U	
BROMOMETHANE				0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE				0.42	J	P	0.25	U		0.41	J	P
CARBON TETRACHLORIDE	860			0.22	U		0.22	U		0.22	U	
CHLOROBENZENE				0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE				0.3	U		0.3	U		0.3	U	
CHLOROETHANE				0.55	U		0.55	U		0.55	U	
CHLOROFORM	900			2.8			0.32	U		0.32	U	
CHLOROMETHANE				0.36	U		0.36	U		0.44	J	P
CIS-1,2-DICHLOROETHENE				0.36	J	P	0.53	J	P	0.21	U	
CIS-1,3-DICHLOROPROPENE				0.19	U		0.19	U		0.19	U	
CYCLOHEXANE				0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE				0.24	U		0.24	U		0.24	U	
ETHYLBENZENE				0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE				0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511 SDG: JAX02 FRACTION: OV MEDIA: WATER	NSAMPLE	JAX45-DPT13-40-06202011DL			JAX45-DPT13-60-06202011			JAX45-DPT14-12-06202011			JAX45-DPT14-20-06202011		
	LAB_ID	SE3574-6DL			SE3574-5			SE3574-12			SE3574-11		
	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011			6/20/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE					0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE					0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER					0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE					1.1	U		1.1	U		1.1	U	
STYRENE					0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE					0.4	U		0.4	U		0.4	U	
TOLUENE					0.27	U		0.27	U		0.27	U	
TOTAL XYLENES					0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE					0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE					0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE					0.28	U		0.28	U		0.28	U	
TRICHLOROFLUOROMETHANE					0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE					0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT14-40-06202011			JAX45-DPT14-60-06202011			JAX45-DPT15-12-06202111			JAX45-DPT15-20-06202111		
SDG: JAX02	LAB_ID	SE3574-10			SE3574-9			SE3574-17			SE3574-16		
FRACTION: OV	SAMP_DATE	6/20/2011			6/20/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		1.3	U		1.3	U		1.3	UJ	C	1.3	UJ	C
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		2.2	UJ	C	2.2	UJ	C	2.2	UJ	C	2.2	UJ	C
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	U		0.25	U		0.25	U		0.65	J	P
CARBON TETRACHLORIDE		0.22	U		0.31	J	P	0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	U		0.55	U		0.55	UJ	C	0.55	UJ	C
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		1.1	J	P	1.1	J	P	0.36	U		0.46	J	P
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	U		0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT14-40-06202011			JAX45-DPT14-60-06202011			JAX45-DPT15-12-06202111			JAX45-DPT15-20-06202111		
SDG: JAX02	LAB_ID	SE3574-10			SE3574-9			SE3574-17			SE3574-16		
FRACTION: OV	SAMP_DATE	6/20/2011			6/20/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.28	U		0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT15-40-06202111			JAX45-DPT15-60-06202111			JAX45-DPT16-12-06202111			JAX45-DPT16-20-06202111		
SDG: JAX02	LAB_ID	SE3574-15			SE3574-14			SE3574-21			SE3574-20		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		6.6	J	C	1.3	UJ	C	1.3	UJ	C	1.3	UJ	C
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		3.7	J	CP	2.2	UJ	C	2.7	J	CP	2.2	UJ	C
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	U		0.25	U		0.25	U		0.54	J	P
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	UJ	C	0.55	UJ	C
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.36	U		0.43	J	P	0.4	J	P	0.36	U	
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	U		0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT15-40-06202111			JAX45-DPT15-60-06202111			JAX45-DPT16-12-06202111			JAX45-DPT16-20-06202111		
SDG: JAX02	LAB_ID	SE3574-15			SE3574-14			SE3574-21			SE3574-20		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.28	U		0.33	J	P
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT16-40-06202111			JAX45-DPT16-60-06202111			JAX45-DPT17-12-06202111			JAX45-DPT17-20-06202111		
SDG: JAX02	LAB_ID	SE3574-19			SE3574-18			SE3574-25			SE3574-24		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		3		
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		6.5	J	C	1.3	UJ	C	1.3	UJ	C	1.3	UJ	C
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		3.3	J	CP	2.2	UJ	C	2.2	UJ	C	2.2	UJ	C
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.43	J	P	0.35	J	P	0.78	J	P	0.44	J	P
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	UJ	C	0.55	UJ	C
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.36	U		0.36	U		0.36	U		0.36	U	
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	U		0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT16-40-06202111			JAX45-DPT16-60-06202111			JAX45-DPT17-12-06202111			JAX45-DPT17-20-06202111		
SDG: JAX02	LAB_ID	SE3574-19			SE3574-18			SE3574-25			SE3574-24		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.71	J	P	8		
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT17-40-06202111			JAX45-DPT17-60-06202111			JAX45-DPT18-12-06202111			JAX45-DPT18-20-06202111		
SDG: JAX02	LAB_ID	SE3574-23			SE3574-22			SE3574-30			SE3574-29		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		1.3	UJ	C	1.3	UJ	C	1.3	UJ	C	1.3	UJ	C
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		2.8	J	CP	2.2	UJ	C	4.2	J	CP	3.2	J	CP
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	U		0.42	J	P	1.9			0.32	J	P
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	UJ	C	0.55	UJ	C
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		1.1	J	P	0.6	J	P	0.36	U		0.48	J	P
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U		0.21	U		0.24	J	P
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	U		0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT17-40-06202111			JAX45-DPT17-60-06202111			JAX45-DPT18-12-06202111			JAX45-DPT18-20-06202111		
SDG: JAX02	LAB_ID	SE3574-23			SE3574-22			SE3574-30			SE3574-29		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.28	U		1.7		
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT18-40-06202111			JAX45-DPT18-60-06202111			JAX45-DPT-DUP01-12-06202011			JAX45-DPT-DUP02-40-06212011		
SDG: JAX02	LAB_ID	SE3574-28			SE3574-27			SE3574-13			SE3574-26		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/20/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF							JAX45-DPT14-12-06202011			JAX45-DPT18-40-06202111		
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.2	U		0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE	0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE	0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.31	U		0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE	0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE	0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE	0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE	0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE	0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE	0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE	0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE	0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE	0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE	1.3	UJ	C	1.3	UJ	C	1.3	U		1.3	UJ	C
2-HEXANONE	1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE	1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE	3	J	CP	2.2	UJ	C	2.2	UJ	C	2.8	J	CP
BENZENE	0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE	0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM	0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE	0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE	0.34	J	P	0.25	U		0.31	J	P	0.25	U	
CARBON TETRACHLORIDE	0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE	0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE	0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE	0.55	UJ	C	0.55	UJ	C	0.55	U		0.55	UJ	C
CHLOROFORM	0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE	0.36	U		0.42	J	P	0.52	J	P	0.36	U	
CIS-1,2-DICHLOROETHENE	0.21	U		0.21	U		0.55	J	P	0.25	J	P
CIS-1,3-DICHLOROPROPENE	0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE	0.31	U		0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE	0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE	0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE	0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT18-40-06202111			JAX45-DPT18-60-06202111			JAX45-DPT-DUP01-12-06202011			JAX45-DPT-DUP02-40-06212011		
SDG: JAX02	LAB_ID	SE3574-28			SE3574-27			SE3574-13			SE3574-26		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011			6/20/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF							JAX45-DPT14-12-06202011			JAX45-DPT18-40-06202111		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.42	J	P	0.28	U		0.28	U		0.87	J	P
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	TB-01
SDG: JAX02	LAB_ID	SE3574-31
FRACTION: OV	SAMP_DATE	6/21/2011
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.2	U	
1,1,2,2-TETRACHLOROETHANE	0.38	U	
1,1,2-TRICHLOROETHANE	0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.31	U	
1,1-DICHLOROETHANE	0.21	U	
1,1-DICHLOROETHENE	0.35	U	
1,2,4-TRICHLOROBENZENE	0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.5	U	
1,2-DIBROMOETHANE	0.22	U	
1,2-DICHLOROBENZENE	0.15	U	
1,2-DICHLOROETHANE	0.2	U	
1,2-DICHLOROPROPANE	0.25	U	
1,3-DICHLOROBENZENE	0.26	U	
1,4-DICHLOROBENZENE	0.24	U	
2-BUTANONE	1.3	UJ	C
2-HEXANONE	1.7	U	
4-METHYL-2-PENTANONE	1.3	U	
ACETONE	2.2	UJ	C
BENZENE	0.26	U	
BROMODICHLOROMETHANE	0.33	U	
BROMOFORM	0.23	U	
BROMOMETHANE	0.49	U	
CARBON DISULFIDE	0.25	U	
CARBON TETRACHLORIDE	0.22	U	
CHLOROBENZENE	0.22	U	
CHLORODIBROMOMETHANE	0.3	U	
CHLOROETHANE	0.55	UJ	C
CHLOROFORM	0.32	U	
CHLOROMETHANE	0.36	U	
CIS-1,2-DICHLOROETHENE	0.21	U	
CIS-1,3-DICHLOROPROPENE	0.19	U	
CYCLOHEXANE	0.31	U	
DICHLORODIFLUOROMETHANE	0.24	U	
ETHYLBENZENE	0.21	U	
ISOPROPYLBENZENE	0.23	U	

PROJ_NO: 01511	NSAMPLE	TB-01		
SDG: JAX02	LAB_ID	SE3574-31		
FRACTION: OV	SAMP_DATE	6/21/2011		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
METHYL ACETATE		0.53	U	
METHYL CYCLOHEXANE		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U	
METHYLENE CHLORIDE		1.1	U	
STYRENE		0.23	U	
TETRACHLOROETHENE		0.4	U	
TOLUENE		0.27	U	
TOTAL XYLENES		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U	
TRICHLOROETHENE		0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U	
VINYL CHLORIDE		0.25	U	

Appendix B

Results as Reported by the Laboratory

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-13
Client ID: T-DUP01-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.52	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.31	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	I	0.55	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-13
Client ID: T-DUP01-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		95.5	%					
1,2-Dichloroethane-d4		86.9	%					
Dibromofluoromethane		86.3	%					

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Cert No E87604

Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-26
Client ID: T-DUP02-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~ *
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	I	0.25	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	I	0.87	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/25/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-26
Client ID: T-DUP02-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		108.	%					
Toluene-d8		90.1	%					
1,2-Dichloroethane-d4		78.2	%					
Dibromofluoromethane		80.0	%					

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Cert No E87604

Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-4
Client ID: 5-DPT12-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: 01-AUG-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride		5.5	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		56.	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.38	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene		7.7	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		7.9	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		150	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	I	0.34	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		47.	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		4.7	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-4
Client ID: 5-DPT12-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		97.0	%					
1,2-Dichloroethane-d4		88.3	%					
Dibromofluoromethane		88.7	%					

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-3
Client ID: 5-DPT12-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	I	1.1	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		40.	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	I	0.64	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		4.2	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		46.	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	I	0.76	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		37.	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		21.	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-3
Client ID: 5-DPT12-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		96.1	%					
1,2-Dichloroethane-d4		87.1	%					
Dibromofluoromethane		87.9	%					

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Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-2
Client ID: 5-DPT12-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	I	0.54	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		67.	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.35	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		6.8	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		34.	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	I	0.36	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		65.	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		46.	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-2
Client ID: 5-DPT12-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		98.2	%					
1,2-Dichloroethane-d4		86.0	%					
Dibromofluoromethane		88.0	%					

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-1
Client ID: 5-DPT12-60-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-1
Client ID: 5-DPT12-60-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		97.7	%					
1,2-Dichloroethane-d4		88.8	%					
Dibromofluoromethane		89.3	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-8
Client ID: 5-DPT13-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.62	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride		2.9	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		6.5	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.56	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene		4.2	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		4.2	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		43.	ug/L	1	1	1.0	0.21	0.50
Chloroform		5.8	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	I	0.95	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	I	0.41	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		3.2	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		24.	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-8
Client ID: 5-DPT13-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	I	0.36	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		94.1	%					
1,2-Dichloroethane-d4		83.6	%					
Dibromofluoromethane		85.3	%					

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Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-7
Client ID: 5-DPT13-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	I	1.2	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		3.2	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.46	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	I	1.7	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.3	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene		1.4	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		2.0	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		21.	ug/L	1	1	1.0	0.21	0.50
Chloroform	L	350	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride		54.	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	I	0.32	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		1.6	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		11.	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene		1.3	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene		5.4	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-7
Client ID: 5-DPT13-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		105.	%					
Toluene-d8		94.3	%					
1,2-Dichloroethane-d4		86.2	%					
Dibromofluoromethane		86.1	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-7DL
Client ID: 5-DPT13-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~ *
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.96	ug/L	4	2	8.0	0.96	4.0
Chloromethane	U	1.4	ug/L	4	2	8.0	1.4	4.0
Vinyl Chloride	I	1.1	ug/L	4	2	8.0	1.0	4.0
Bromomethane	U	2.0	ug/L	4	2	8.0	2.0	4.0
Chloroethane	U	2.2	ug/L	4	2	8.0	2.2	4.0
Trichlorofluoromethane	U	0.96	ug/L	4	2	8.0	0.96	4.0
1,1-Dichloroethene	I	2.6	ug/L	4	1	4.0	1.4	2.0
Carbon Disulfide	U	1.0	ug/L	4	1	4.0	1.0	2.0
Methylene Chloride	U	4.5	ug/L	4	5	20.	4.5	10.
Acetone	U	8.8	ug/L	4	5	20.	8.8	10.
trans-1,2-Dichloroethene	I	1.2	ug/L	4	1	4.0	1.0	2.0
Methyl tert-butyl Ether	U	1.4	ug/L	4	1	4.0	1.4	2.0
1,1-Dichloroethane	I	1.5	ug/L	4	1	4.0	0.84	2.0
cis-1,2-Dichloroethene		16.	ug/L	4	1	4.0	0.84	2.0
Chloroform		500	ug/L	4	1	4.0	1.3	2.0
Carbon Tetrachloride		56.	ug/L	4	1	4.0	0.88	2.0
1,1,1-Trichloroethane	U	0.80	ug/L	4	1	4.0	0.80	2.0
2-Butanone	U	5.2	ug/L	4	5	20.	5.2	10.
Benzene	U	1.0	ug/L	4	1	4.0	1.0	2.0
1,2-Dichloroethane	I	1.4	ug/L	4	1	4.0	0.80	2.0
Trichloroethene		8.7	ug/L	4	1	4.0	1.1	2.0
1,2-Dichloropropane	U	1.0	ug/L	4	1	4.0	1.0	2.0
Bromodichloromethane	U	1.3	ug/L	4	1	4.0	1.3	2.0
cis-1,3-Dichloropropene	U	0.76	ug/L	4	1	4.0	0.76	2.0
Toluene	I	1.5	ug/L	4	1	4.0	1.1	2.0
4-Methyl-2-Pentanone	U	5.3	ug/L	4	5	20.	5.3	10.
Tetrachloroethene		10.	ug/L	4	1	4.0	1.6	2.0
trans-1,3-Dichloropropene	U	0.80	ug/L	4	1	4.0	0.80	2.0
1,1,2-Trichloroethane	U	1.3	ug/L	4	1	4.0	1.3	2.0
Dibromochloromethane	U	1.2	ug/L	4	1	4.0	1.2	2.0
1,2-Dibromoethane	U	0.88	ug/L	4	1	4.0	0.88	2.0
2-Hexanone	U	6.8	ug/L	4	5	20.	6.8	10.
Chlorobenzene	U	0.88	ug/L	4	1	4.0	0.88	2.0
Ethylbenzene	U	0.84	ug/L	4	1	4.0	0.84	2.0
Styrene	U	0.92	ug/L	4	1	4.0	0.92	2.0

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Report of Analytical Results

06/24/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-7DL
Client ID: 5-DPT13-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.92	ug/L	4	1	4.0	0.92	2.0
Isopropylbenzene	U	0.92	ug/L	4	1	4.0	0.92	2.0
1,1,2,2-Tetrachloroethane	U	1.5	ug/L	4	1	4.0	1.5	2.0
1,3-Dichlorobenzene	U	1.0	ug/L	4	1	4.0	1.0	2.0
1,4-Dichlorobenzene	U	0.96	ug/L	4	1	4.0	0.96	2.0
1,2-Dichlorobenzene	U	0.60	ug/L	4	1	4.0	0.60	2.0
1,2-Dibromo-3-Chloropropane	U	2.0	ug/L	4	1	4.0	2.0	3.0
1,2,4-Trichlorobenzene	U	1.5	ug/L	4	1	4.0	1.5	2.0
Freon-113	U	1.2	ug/L	4	1	4.0	1.2	2.0
Cyclohexane	U	1.2	ug/L	4	1	4.0	1.2	2.0
Methyl acetate	U	2.1	ug/L	4	1	4.0	2.1	3.0
Methylcyclohexane	U	1.2	ug/L	4	1	4.0	1.2	2.0
Total Xylene	U	1.0	ug/L	4	3	12.	1.0	6.0
P-Bromofluorobenzene		106.	%					
Toluene-d8		93.1	%					
1,2-Dichloroethane-d4		82.4	%					
Dibromofluoromethane		83.5	%					

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-6
Client ID: 5-DPT13-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	I	0.44	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide		2.8	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride		6.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	L	610	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	L	760	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	I	0.40	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene		4.6	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene		13.	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-6
Client ID: 5-DPT13-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	I	0.40	ug/L	1	1	1.0	0.30	0.50
Total Xylene		6.2	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		96.5	%					
1,2-Dichloroethane-d4		87.7	%					
Dibromofluoromethane		88.2	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-6DL
Client ID: 5-DPT13-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	2.4	ug/L	10	2	20.	2.4	10.
Chloromethane	U	3.6	ug/L	10	2	20.	3.6	10.
Vinyl Chloride	U	2.5	ug/L	10	2	20.	2.5	10.
Bromomethane	U	4.9	ug/L	10	2	20.	4.9	10.
Chloroethane	U	5.5	ug/L	10	2	20.	5.5	10.
Trichlorofluoromethane	U	2.4	ug/L	10	2	20.	2.4	10.
1,1-Dichloroethene	U	3.5	ug/L	10	1	10.	3.5	5.0
Carbon Disulfide	U	2.5	ug/L	10	1	10.	2.5	5.0
Methylene Chloride	U	11.	ug/L	10	5	50.	11.	25.
Acetone	U	22.	ug/L	10	5	50.	22.	25.
trans-1,2-Dichloroethene	U	2.5	ug/L	10	1	10.	2.5	5.0
Methyl tert-butyl Ether	U	3.6	ug/L	10	1	10.	3.6	5.0
1,1-Dichloroethane	U	2.1	ug/L	10	1	10.	2.1	5.0
cis-1,2-Dichloroethene	U	2.1	ug/L	10	1	10.	2.1	5.0
Chloroform		900	ug/L	10	1	10.	3.2	5.0
Carbon Tetrachloride		860	ug/L	10	1	10.	2.2	5.0
1,1,1-Trichloroethane	U	2.0	ug/L	10	1	10.	2.0	5.0
2-Butanone	U	13.	ug/L	10	5	50.	13.	25.
Benzene	U	2.6	ug/L	10	1	10.	2.6	5.0
1,2-Dichloroethane	U	2.0	ug/L	10	1	10.	2.0	5.0
Trichloroethene	U	2.8	ug/L	10	1	10.	2.8	5.0
1,2-Dichloropropane	U	2.5	ug/L	10	1	10.	2.5	5.0
Bromodichloromethane	U	3.3	ug/L	10	1	10.	3.3	5.0
cis-1,3-Dichloropropene	U	1.9	ug/L	10	1	10.	1.9	5.0
Toluene	I	4.4	ug/L	10	1	10.	2.7	5.0
4-Methyl-2-Pentanone	U	13.	ug/L	10	5	50.	13.	25.
Tetrachloroethene		25.	ug/L	10	1	10.	4.0	5.0
trans-1,3-Dichloropropene	U	2.0	ug/L	10	1	10.	2.0	5.0
1,1,2-Trichloroethane	U	3.3	ug/L	10	1	10.	3.3	5.0
Dibromochloromethane	U	3.0	ug/L	10	1	10.	3.0	5.0
1,2-Dibromoethane	U	2.2	ug/L	10	1	10.	2.2	5.0
2-Hexanone	U	17.	ug/L	10	5	50.	17.	25.
Chlorobenzene	U	2.2	ug/L	10	1	10.	2.2	5.0
Ethylbenzene	U	2.1	ug/L	10	1	10.	2.1	5.0
Styrene	U	2.3	ug/L	10	1	10.	2.3	5.0

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-6DL
Client ID: 5-DPT13-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: 02-~~AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	2.3	ug/L	10	1	10.	2.3	5.0
Isopropylbenzene	U	2.3	ug/L	10	1	10.	2.3	5.0
1,1,2,2-Tetrachloroethane	U	3.8	ug/L	10	1	10.	3.8	5.0
1,3-Dichlorobenzene	U	2.6	ug/L	10	1	10.	2.6	5.0
1,4-Dichlorobenzene	U	2.4	ug/L	10	1	10.	2.4	5.0
1,2-Dichlorobenzene	U	1.5	ug/L	10	1	10.	1.5	5.0
1,2-Dibromo-3-Chloropropane	U	5.0	ug/L	10	1	10.	5.0	7.5
1,2,4-Trichlorobenzene	U	3.7	ug/L	10	1	10.	3.7	5.0
Freon-113	U	3.1	ug/L	10	1	10.	3.1	5.0
Cyclohexane	U	3.1	ug/L	10	1	10.	3.1	5.0
Methyl acetate	U	5.3	ug/L	10	1	10.	5.3	7.5
Methylcyclohexane	U	3.0	ug/L	10	1	10.	3.0	5.0
Total Xylene	U	2.5	ug/L	10	3	30.	2.5	15.
P-Bromofluorobenzene		106.	%					
Toluene-d8		92.6	%					
1,2-Dichloroethane-d4		82.9	%					
Dibromofluoromethane		84.4	%					

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Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-5
Client ID: 5-DPT13-60-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.42	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	I	0.36	ug/L	1	1	1.0	0.21	0.50
Chloroform		2.8	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11 SK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-5
Client ID: 5-DPT13-60-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		105.	%					
Toluene-d8		95.8	%					
1,2-Dichloroethane-d4		85.7	%					
Dibromofluoromethane		86.8	%					

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-12
Client ID: 5-DPT14-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	I	0.53	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-12
Client ID: 5-DPT14-12-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		108.	%					
Toluene-d8		96.4	%					
1,2-Dichloroethane-d4		87.7	%					
Dibromofluoromethane		86.6	%					

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-11
Client ID: 5-DPT14-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.44	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.41	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-11
Client ID: 5-DPT14-20-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		95.1	%					
1,2-Dichloroethane-d4		85.6	%					
Dibromofluoromethane		85.7	%					

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Report of Analytical Results

06/23/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-10
Client ID: 5-DPT14-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	1.1	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-10
Client ID: 5-DPT14-40-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		108.	%					
Toluene-d8		97.9	%					
1,2-Dichloroethane-d4		86.7	%					
Dibromofluoromethane		86.9	%					

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-9
Client ID: 5-DPT14-60-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	1.1	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	I	0.31	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/23/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-9
Client ID: 5-DPT14-60-06202011
Project: NAS JAX
SDG: JAX02

Sample Date: 20-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		96.9	%					
1,2-Dichloroethane-d4		85.5	%					
Dibromofluoromethane		85.8	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-17
Client ID: 5-DPT15-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-17
Client ID: 5-DPT15-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		93.0	%					
1,2-Dichloroethane-d4		83.8	%					
Dibromofluoromethane		84.1	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-16
Client ID: 5-DPT15-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.46	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.65	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-16
Client ID: 5-DPT15-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		92.6	%					
1,2-Dichloroethane-d4		82.1	%					
Dibromofluoromethane		82.7	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-15
Client ID: 5-DPT15-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	J	3.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone		6.6	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-15
Client ID: 5-DPT15-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		93.1	%					
1,2-Dichloroethane-d4		83.4	%					
Dibromofluoromethane		84.9	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-14
Client ID: 5-DPT15-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.43	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-14
Client ID: 5-DPT15-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		92.5	%					
1,2-Dichloroethane-d4		83.1	%					
Dibromofluoromethane		84.1	%					

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Report of Analytical Results

06/24/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-21
Client ID: 5-DPT16-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.40	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-21
Client ID: 5-DPT16-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		92.0	%					
1,2-Dichloroethane-d4		82.7	%					
Dibromofluoromethane		82.8	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-20
Client ID: 5-DPT16-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.54	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	I	0.33	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-20
Client ID: 5-DPT16-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		92.7	%					
1,2-Dichloroethane-d4		82.5	%					
Dibromofluoromethane		82.3	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-19
Client ID: 5-DPT16-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.43	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.3	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone		6.5	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-19
Client ID: 5-DPT16-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: 02-AUG-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		92.9	%					
1,2-Dichloroethane-d4		82.8	%					
Dibromofluoromethane		83.3	%					

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Report of Analytical Results

06/24/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-18
Client ID: 5-DPT16-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	0.35	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-18
Client ID: 5-DPT16-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		91.8	%					
1,2-Dichloroethane-d4		82.8	%					
Dibromofluoromethane		82.6	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-25
Client ID: 5-DPT17-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: 02-AUG-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.78	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	I	0.71	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-25
Client ID: 5-DPT17-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		92.9	%					
1,2-Dichloroethane-d4		82.8	%					
Dibromofluoromethane		82.9	%					

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Report of Analytical Results

06/24/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-24
Client ID: 5-DPT17-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		3.0	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.44	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		8.0	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-24
Client ID: 5-DPT17-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		109.	%					
Toluene-d8		92.6	%					
1,2-Dichloroethane-d4		83.0	%					
Dibromofluoromethane		83.5	%					

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Report of Analytical Results

08/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-23
Client ID: 5-DPT17-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	1.1	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-23
Client ID: 5-DPT17-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		105.	%					
Toluene-d8		90.7	%					
1,2-Dichloroethane-d4		82.3	%					
Dibromofluoromethane		82.3	%					

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-22
Client ID: 5-DPT17-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

JK

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.60	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.42	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/24/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-22
Client ID: 5-DPT17-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		91.6	%					
1,2-Dichloroethane-d4		81.0	%					
Dibromofluoromethane		80.9	%					

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Report of Analytical Results

06/25/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-30
Client ID: 5-DPT18-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide		1.9	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	4.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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ANALYTICAL SERVICES

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Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-30
Client ID: 5-DPT18-12-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: 03-AUG-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		110.	%					
Toluene-d8		89.6	%					
1,2-Dichloroethane-d4		79.6	%					
Dibromofluoromethane		79.2	%					

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Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-29
Client ID: 5-DPT18-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: 03-AUG-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: 03-AUG-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.48	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.32	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	I	0.24	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		1.7	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-29
Client ID: 5-DPT18-20-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		88.5	%					
1,2-Dichloroethane-d4		77.3	%					
Dibromofluoromethane		78.9	%					

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Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-28
Client ID: 5-DPT18-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.34	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.0	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	I	0.42	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-28
Client ID: 5-DPT18-40-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		109.	%					
Toluene-d8		91.4	%					
1,2-Dichloroethane-d4		77.9	%					
Dibromofluoromethane		78.8	%					

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Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-27
Client ID: 5-DPT18-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.42	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Cert No E87604

Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-27
Client ID: 5-DPT18-60-06202111
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		110.	%					
Toluene-d8		90.8	%					
1,2-Dichloroethane-d4		80.1	%					
Dibromofluoromethane		80.1	%					

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Report of Analytical Results

06/25/11 JK

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-31
Client ID: TB-01
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

06/25/11

Client: Tetra Tech NUS, Inc.
Lab ID: SE3574-31
Client ID: TB-01
Project: NAS JAX
SDG: JAX02

Sample Date: 21-JUN-11
Received Date: 22-JUN-11
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		108.	%					
Toluene-d8		90.2	%					
1,2-Dichloroethane-d4		77.5	%					
Dibromofluoromethane		79.1	%					

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Appendix C

Support Documentation

HOLDTIME

SDG JAX02

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT16-40-062021	SE3574-19	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT15-12-062021	SE3574-17	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT15-20-062021	SE3574-16	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT15-20-062021	SE3574-16	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT15-40-062021	SE3574-15	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT15-40-062021	SE3574-15	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT15-60-062021	SE3574-14	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT15-60-062021	SE3574-14	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT16-12-062021	SE3574-21	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT16-12-062021	SE3574-21	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT12-12-062020	SE3574-4	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT16-20-062021	SE3574-20	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT14-60-062020	SE3574-9	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT16-40-062021	SE3574-19	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT16-60-062021	SE3574-18	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT16-60-062021	SE3574-18	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT17-12-062021	SE3574-25	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT17-12-062021	SE3574-25	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT17-20-062021	SE3574-24	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT17-20-062021	SE3574-24	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT17-40-062021	SE3574-23	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT17-40-062021	SE3574-23	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT16-20-062021	SE3574-20	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT13-40-062020	SE3574-6	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT12-12-062020	SE3574-4	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT12-20-062020	SE3574-3	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT12-20-062020	SE3574-3	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT12-40-062020	SE3574-2	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT12-40-062020	SE3574-2	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT12-60-062020	SE3574-1	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT12-60-062020	SE3574-1	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT13-12-062020	SE3574-8	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
OV	%	JAX45-DPT13-12-062020	SE3574-8	SUR	06/20/2011	06/24/2011	06/24/2011	4	0	4

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT15-12-062021	SE3574-17	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT13-20-062020	SE3574-7	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT14-60-062020	SE3574-9	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT13-40-062020	SE3574-6	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT13-60-062020	SE3574-5	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT13-60-062020	SE3574-5	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT14-12-062020	SE3574-12	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT14-12-062020	SE3574-12	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT14-20-062020	SE3574-11	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT14-20-062020	SE3574-11	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT14-40-062020	SE3574-10	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT14-40-062020	SE3574-10	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT18-12-062021	SE3574-30	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT13-20-062020	SE3574-7	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT-DUP01-12-06	SE3574-13	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	JAX45-DPT17-60-062021	SE3574-22	SUR	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	JAX45-DPT17-60-062021	SE3574-22	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	%	TB-01	SE3574-31	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT-DUP02-40-06	SE3574-26	SUR	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT-DUP01-12-06	SE3574-13	SUR	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	%	TB-01	SE3574-31	SUR	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT18-60-062021	SE3574-27	SUR	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT18-60-062021	SE3574-27	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT18-40-062021	SE3574-28	SUR	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT18-40-062021	SE3574-28	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT18-20-062021	SE3574-29	SUR	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT18-20-062021	SE3574-29	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT18-12-062021	SE3574-30	SUR	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	%	JAX45-DPT-DUP02-40-06	SE3574-26	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	UG/L	JAX45-DPT17-20-062021	SE3574-24	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT16-20-062021	SE3574-20	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT16-40-062021	SE3574-19	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT16-60-062021	SE3574-18	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT17-12-062021	SE3574-25	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT16-12-062021	SE3574-21	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT17-40-062021	SE3574-23	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	JAX45-DPT17-60-062021	SE3574-22	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT18-12-062021	SE3574-30	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	UG/L	JAX45-DPT18-20-062021	SE3574-29	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	UG/L	JAX45-DPT18-40-062021	SE3574-28	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	UG/L	JAX45-DPT15-60-062021	SE3574-14	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT-DUP01-12-06	SE3574-13	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT13-40-062020	SE3574-6DL	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
OV	UG/L	JAX45-DPT-DUP02-40-06	SE3574-26	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	UG/L	JAX45-DPT18-60-062021	SE3574-27	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	UG/L	JAX45-DPT13-40-062020	SE3574-6	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	TB-01	SE3574-31	NM	06/21/2011	06/25/2011	06/25/2011	4	0	4
OV	UG/L	JAX45-DPT12-12-062020	SE3574-4	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT12-20-062020	SE3574-3	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT12-40-062020	SE3574-2	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT12-60-062020	SE3574-1	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT13-12-062020	SE3574-8	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
OV	UG/L	JAX45-DPT14-12-062020	SE3574-12	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT13-20-062020	SE3574-7DL	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	JAX45-DPT15-40-062021	SE3574-15	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT13-60-062020	SE3574-5	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT14-20-062020	SE3574-11	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT14-40-062020	SE3574-10	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT14-60-062020	SE3574-9	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3
OV	UG/L	JAX45-DPT15-12-062021	SE3574-17	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT15-20-062021	SE3574-16	NM	06/21/2011	06/24/2011	06/24/2011	3	0	3
OV	UG/L	JAX45-DPT13-20-062020	SE3574-7	NM	06/20/2011	06/23/2011	06/23/2011	3	0	3

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2264 | PAGE 1 OF 3

PROJECT NO: 112G01511	FACILITY: NAS JAX	PROJECT MANAGER ALAN PATE	PHONE NUMBER (904) 636-6125	LABORATORY NAME AND CONTACT: KATAHDIN ANALYTICAL LABS KELLY PERK
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER ZACH SCRIBNER	PHONE NUMBER (904) 636-6125	ADDRESS 600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER 8600 1730 1532		CITY, STATE SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

SE3574

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G): G	PRESERVATIVE USED: HCl	TYPE OF ANALYSIS: VOC	COMMENTS
6/20	1030	JAX45-DPT12-60-06202011				GW	G	3	3			-Cool to 4°C
	1045	JAX45-DPT12-40-06202011										
	1055	JAX45-DPT12-20-06202011										
	1110	JAX45-DPT12-12-06202011										
	1315	JAX45-DPT13-60-06202011										
	1325	JAX45-DPT13-40-06202011										
	1345	JAX45-DPT13-20-06202011										
	1355	JAX45-DPT13-12-06202011										
	1505	JAX45-DPT14-60-06202011										
	1520	JAX45-DPT14-40-06202011										
	1536	JAX45-DPT-14-20-06202011										
	1545	JAX45-DPT14-12-06202011										
	0000	JAX45-DPT-Dup01-12-06202011										

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	06/21/2011	1700	1. RECEIVED BY	6-22-11	10:00
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2265 | PAGE 2 OF 3

PROJECT NO: 112G01511	FACILITY: NAS JAX	PROJECT MANAGER ALAN PATE	PHONE NUMBER (904) 636-6125	LABORATORY NAME AND CONTACT: KATAHDIN ANALYTICAL LABS / KELLY PERKIN
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER ZACH SCRIBNER	PHONE NUMBER (904) 636-6125	ADDRESS 6000 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER 86060 1730 1532		CITY, STATE SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

SE3574

DATE YEAR	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS VOC								COMMENTS
									G	HCl									
6/21/2011	1000	JAX45-DPT15-60-06212011				GW	G	3	3										Cool to 4°C
	1015	JAX45-DPT15-40-06212011																	
	1025	JAX45-DPT15-20-06212011																	
	1030	JAX45-DPT15-12-06212011																	
	1145	JAX45-DPT16-60-06212011																	
	1200	JAX45-DPT16-40-06212011																	
	1210	JAX45-DPT16-20-06212011																	
	1215	JAX45-DPT16-12-06212011																	
	1405	JAX45-DPT17-60-06212011																	
	1420	JAX45-DPT17-40-06212011																	
	1430	JAX45-DPT17-20-06212011																	
	1435	JAX45-DPT17-12-06212011																	
↓	0000	JAX45-DPT-DUP02-40-06812011				↓	↓	↓	↓										

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	06/21/2011	1700	1. RECEIVED BY	6-22-11	0700
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2266 | PAGE 3 OF 3

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN ANALYTICAL LABS / KELLY PERKIN
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		ZACH SCRIBNER	(904) 636-6125	6000 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE
		8660 1730 1532		SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

SE3574

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS VOC	COMMENTS
									G	HCl		
6/21	1545	JAX45-DPT18-60-062	2011			GW	G	3	3			cool to 4°C
↓	1600	JAX45-DPT18-40-062	2011			↓	↓	↓	↓			
↓	1610	JAX45-DPT18-20-062	2011			↓	↓	↓	↓			
↓	1620	JAX45-DPT18-12-062	2011			↓	↓	↓	↓			
												← TRIPBLANK
6/21	1700	TB-01				QC	-	2	2			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	06/21/2011	1700	1. RECEIVED BY	6-22-11	10:00
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Katahdin Analytical Services, Inc. — Sample Receipt Condition Report

Client: Tetra Tech	KAS PM: KAP	Sampled By: Client
Project: JAX	KIMS Entry By: GN	Delivered By: Fed-Ex
KAS Work Order#: SE3574	KIMS Review By:	Received By: GN
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 6-22-11/10:00

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 0-8
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol,				✓	
TPO4, N+N, TOC, DRO, TPH – pH <2 Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
TETRA TECH NUS
CASE NAS JAX
SDG: JAX02
SE3574

Sample Receipt

The following samples were received on June 22, 2011 and were logged in under Katahdin Analytical Services work order number SE3574 for a hardcopy due date of July 11, 2011.

KATAHDIN Sample No.	TTNUS Sample Identification
SE3574-1	5-DPT12-60-06202011
SE3574-2	5-DPT12-40-06202011
SE3574-3	5-DPT12-20-06202011
SE3574-4	5-DPT12-12-06202011
SE3574-5	5-DPT13-60-06202011
SE3574-6	5-DPT13-40-06202011
SE3574-7	5-DPT13-20-06202011
SE3574-8	5-DPT13-12-06202011
SE3574-9	5-DPT14-60-06202011
SE3574-10	5-DPT14-40-06202011
SE3574-11	5-DPT14-20-06202011
SE3574-12	5-DPT14-12-06202011
SE3574-13	T-DUP01-12-06202011
SE3574-14	5-DPT15-60-06202011
SE3574-15	5-DPT15-40-06202011
SE3574-16	5-DPT15-20-06202011
SE3574-17	5-DPT15-12-06202011
SE3574-18	5-DPT16-60-06202011
SE3574-19	5-DPT16-40-06202011
SE3574-20	5-DPT16-20-06202011
SE3574-21	5-DPT16-12-06202011
SE3574-22	5-DPT17-60-06202011
SE3574-23	5-DPT17-40-06202011
SE3574-24	5-DPT17-20-06202011
SE3574-25	5-DPT17-12-06202011
SE3574-26	T-DUP02-40-06202011
SE3574-27	5-DPT18-60-06202011
SE3574-28	5-DPT18-40-06202011
SE3574-29	5-DPT18-20-06202011
SE3574-30	5-DPT18-12-06202011
SE3574-31	TB-01

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

The client IDs on the Chain of Custody exceeds the 19-character limit of the Katahdin Analytical Information Management System. Therefore, the first characters "JAX4" in the client IDs for SE3574-1 through -12, SE3574-14 through -25 and SE3574-27 through -30 were omitted on all forms. In addition, the first characters "JAX45-DP" in the client IDs for SE3574-13 and SE3574-26 were omitted on all forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Kelly Perkins**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of SDG JAX02 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, and III 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or for the specific methods listed below or on the Report of Analysis.

8260B Analysis

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The date on the computer used to collect data from the "D" instrument was not the actual date for these samples and QC. The time on the computer was correct, but the date was off by several weeks. Consequently, the dates stamped on the quantitation reports, ROAs and QC summary reports for this job are incorrect. Forms that indicate the date of 01-AUG-11 should be 23-JUN-11, those that indicate 02-AUG-11 should be 24-JUN-11 and those that indicate 03-AUG-11 should be 25-JUN-11. This was not noticed until final review, and due to software security measures, the timestamps could not be altered.

Samples SE3574-2, 3, 4, 7, 7DL, 8, 19, 22, 26, 28, and 29 were manually integrated for the analytes benzene, 1,2-dichloroethane, acetone, 2-butanone and/or carbon disulfide. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The initial calibration analyzed on the D instrument on 6/23/11 (printed as 08/01/11) had a %RSD value for acetone that exceeded the method acceptance limit of 15%. The analyte met the acceptance criteria for the linear and quadratic calibration models. Although the %RSD is greater than 15%, acetone was calibrated with the average model since this calibration model is more accurate for this analyte at concentrations near the PQL than either the linear or quadratic calibration models.

The independent check standard (file D1507a), associated with the initial calibration analyzed on 6/23/11, had high concentrations for the analytes dichlorodifluoromethane and chloroethane and low concentrations for the target analytes 1,2-dibromo-3-chloropropane and methyl acetate, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard is the same source as the LCS. There were three analytical batches associated with this initial calibration and the LCS recoveries acceptable. Therefore, the associated samples were not reanalyzed. The independent check standard recovery report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The calibration verification standards (CV) (files D1527 and D1550) had low responses for the analyte 2-butanone and high responses for the analyte chloroethane. These responses resulted in %D's that were greater than the DoD QSM version 4.1 acceptance limits of 20%. Since the associated LCS's (WG93252-1 and WG93285-1) had recoveries that were within the laboratory established acceptance limits for the aforementioned compounds, the associated samples were not reanalyzed.

There were no other protocol deviations or observations noted by the organics laboratory staff.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond
070511

Leslie Dimond
Quality Assurance Officer

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Lab File ID: DB670 BFB Injection Date: ~~08/01/11~~ 06/23/11 07/20/11

Instrument ID: GCMS-D BFB Injection Time: 0902

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	44.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	74.2
175	5.0 - 9.0% of mass 174	5.4 (7.3)1
176	95.0 - 101.0% of mass 174	73.0 (98.4)1
177	5.0 - 9.0% of mass 176	5.1 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD200D23A	D1501	08/01/11	0930
02		VSTD100D23A	D1502	08/01/11	1000
03		VSTD050D23A	D1503	08/01/11	1031
04		VSTD020D23A	D1504	08/01/11	1101
05		VSTD005D23A	D1505	08/01/11	1131
06		VSTD001D23A	D1506	08/01/11	1201
07	WG93225-LCS	WG93225-1	D1507	08/01/11	1248
08		IND CHECK	D1507A	08/01/11	1248
09	WG93225-BLANK	WG93225-2	D1509	08/01/11	1407
10	5-DPT12-60-06202011	SE3574-1	D1510	08/01/11	1438
11	5-DPT12-40-06202011	SE3574-2	D1511	08/01/11	1508
12	5-DPT12-20-06202011	SE3574-3	D1512	08/01/11	1538
13	5-DPT12-12-06202011	SE3574-4	D1513	08/01/11	1608
14	5-DPT13-60-06202011	SE3574-5	D1514	08/01/11	1638
15	5-DPT13-40-06202011	SE3574-6	D1515	08/01/11	1708
16	5-DPT13-20-06202011	SE3574-7	D1516	08/01/11	1738
17	5-DPT14-60-06202011	SE3574-9	D1518	08/01/11	1840
18	5-DPT14-40-06202011	SE3574-10	D1519	08/01/11	1911
19	5-DPT14-20-06202011	SE3574-11	D1520	08/01/11	1942
20	5-DPT14-12-06202011	SE3574-12	D1521	08/01/11	2013
21	T-DUP01-12-06202011	SE3574-13	D1522	08/01/11	2044
22					

FORM V VOA

6/23/11 07/20/11

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX02 06/23/11 *07/20/11

Instrument ID: GCMS-D Calibration Date(s): ~~08/01/11 08/01/11~~

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 0930 1201

LAB FILE ID: RF1: D1506 RF5: D1505 RF20: D1504
RF50: D1503 RF100: D1502 RF200: D1501

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2	
m+p-Xylenes	53166	219430	1065800	2401400	4855700	7992400	2ORDR	8.626e-002	0.99264522	0.16908764	0.99817	0.99000	
o-Xylene	24281	105610	519750	1199200	2586600	4871400	2ORDR	2.395e-002	1.24727798	7.414e-002	0.99932	0.99000	
Dichlorodifluoromethane	0.364	0.383	0.419	0.400	0.459	0.430	AVRG		0.40930047		8.309	15.000	
Chloromethane	0.489	0.479	0.558	0.578	0.643	0.592	AVRG		0.55645252		11.305	15.000	
Vinyl chloride	0.500	0.532	0.610	0.593	0.654	0.598	AVRG		0.58116415		9.638	15.000	
Bromomethane	0.357	0.281	0.308	0.295	0.294	0.284	AVRG		0.30340538		9.297	15.000	
Chloroethane	8229	37891	155930	335480	540060	1110100	LINR	-7.45e-002	4.47644896		0.99548	0.99000	
Trichlorofluoromethane	0.601	0.617	0.663	0.640	0.691	0.627	AVRG		0.63990716		5.128	15.000	
1,1-Dichloroethene	0.397	0.330	0.423	0.385	0.414	0.386	AVRG		0.38925374		8.386	15.000	
Carbon Disulfide	1.293	1.057	1.351	1.232	1.285	1.209	AVRG		1.23792306		8.213	15.000	
Freon-113	0.317	0.291	0.299	0.293	0.314	0.300	AVRG		0.30229804		3.550	15.000	
Methylene Chloride	0.668	0.457	0.525	0.501	0.540	0.530	AVRG		0.53685305		13.172	15.000	
Acetone	0.198	0.146	0.120	0.114	0.123	0.110	AVRG		0.13496895		24.657	15.000	<-
trans-1,2-Dichloroethene	0.513	0.440	0.519	0.482	0.535	0.512	AVRG		0.50023329		6.814	15.000	
Methyl tert-butyl ether	1.287	1.241	1.274	1.294	1.366	1.140	AVRG		1.26702001		5.882	15.000	
1,1-Dichloroethane	0.844	0.721	0.865	0.794	0.874	0.826	AVRG		0.82067907		6.909	15.000	
cis-1,2-Dichloroethene	0.555	0.448	0.554	0.509	0.560	0.539	AVRG		0.52764390		8.141	15.000	
Chloroform	0.828	0.682	0.830	0.769	0.842	0.794	AVRG		0.79087510		7.557	15.000	
Carbon Tetrachloride	0.376	0.315	0.395	0.357	0.404	0.378	AVRG		0.37102142		8.569	15.000	
1,1,1-Trichloroethane	0.682	0.583	0.729	0.655	0.740	0.691	AVRG		0.67992331		8.392	15.000	
2-Butanone	29025	122420	424740	1027000	2145000	3666700	2ORDR	0.10863477	4.62057276	0.67333095	0.99858	0.99000	
Benzene	1.388	1.153	1.395	1.252	1.317	1.090	AVRG		1.26571459		9.862	15.000	
Cyclohexane	0.833	0.641	0.753	0.685	0.797	0.750	AVRG		0.74329729		9.502	15.000	
1,2-Dichloroethane	0.357	0.321	0.372	0.346	0.368	0.345	AVRG		0.35159475		5.252	15.000	
Trichloroethene	0.306	0.261	0.310	0.280	0.308	0.285	AVRG		0.29168028		6.749	15.000	
1,2-Dichloropropane	0.295	0.252	0.309	0.287	0.311	0.295	AVRG		0.29160452		7.305	15.000	
Bromodichloromethane	0.371	0.331	0.402	0.386	0.420	0.392	AVRG		0.38394478		7.996	15.000	
cis-1,3-dichloropropene	0.458	0.419	0.526	0.500	0.541	0.496	AVRG		0.49000439		9.216	15.000	
Toluene	0.910	0.766	0.926	0.840	0.879	0.761	AVRG		0.84706569		8.368	15.000	
4-methyl-2-pentanone	0.237	0.218	0.217	0.213	0.206	0.155	AVRG		0.20768297		13.451	15.000	
Tetrachloroethene	14905	42529	227830	454440	1113900	2139800	2ORDR	2.763e-002	3.08905344	0.16931102	0.99741	0.99000	
trans-1,3-Dichloropropene	0.364	0.342	0.424	0.415	0.453	0.412	AVRG		0.40164086		10.243	15.000	
1,1,2-Trichloroethane	0.224	0.198	0.215	0.208	0.220	0.205	AVRG		0.21163992		4.666	15.000	
Dibromochloromethane	0.269	0.239	0.305	0.302	0.335	0.322	AVRG		0.29556969		12.039	15.000	
1,2-Dibromoethane	0.249	0.222	0.254	0.252	0.269	0.255	AVRG		0.25018631		6.162	15.000	
2-Hexanone	0.207	0.180	0.171	0.171	0.173	0.141	AVRG		0.17379146		12.237	15.000	
Chlorobenzene	1.032	0.863	1.022	0.926	0.963	0.836	AVRG		0.94020089		8.590	15.000	
Ethylbenzene	0.592	0.490	0.594	0.547	0.587	0.548	AVRG		0.55959805		7.206	15.000	
Xylenes (total)							AVRG					0.000	
Styrene	1.095	1.014	1.249	1.176	1.223	1.027	AVRG		1.13062579		8.886	15.000	
Bromoform	0.158	0.146	0.179	0.191	0.213	0.206	AVRG		0.18219882		14.550	15.000	
Isopropylbenzene	54145	226870	1106700	2515200	5216800	8614600	2ORDR	4.718e-002	0.27258853	2.833e-002	0.99776	0.99000	
1,1,2,2-Tetrachloroethane	0.649	0.576	0.610	0.611	0.644	0.598	AVRG		0.61458462		4.524	15.000	
1,3-Dichlorobenzene	1.608	1.263	1.473	1.361	1.424	1.252	AVRG		1.39686927		9.667	15.000	

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX02 06/23/11 JK 07/20/11

Instrument ID: GCMS-D Calibration Date(s): ~~08/01/11 08/01/11~~

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 0930 1201

LAB FILE ID: RF1: D1506 RF5: D1505 RF20: D1504
RF50: D1503 RF100: D1502 RF200: D1501

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dichlorobenzene	1.691	1.325	1.509	1.391	1.446	1.261	AVRG		1.43709413		10.575	15.000
1,2-Dichlorobenzene	1.542	1.244	1.398	1.313	1.377	1.213	AVRG		1.34788247		8.854	15.000
1,2-Dibromo-3-Chloropropa	0.149	0.117	0.116	0.120	0.140	0.120	AVRG		0.12708169		11.017	15.000
1,2,4-Trichlorobenzene	27818	98797	427610	1003500	2134200	3915600	LINR	-4.6e-002	1.09501798		0.99592	0.99000
Methyl Acetate	0.341	0.333	0.280	0.299	0.334	0.300	AVRG		0.31452874		7.854	15.000
Methylcyclohexane	0.992	0.824	0.837	0.804	0.914	0.817	AVRG		0.86476508		8.505	15.000
Dibromofluoromethane	14813	50615	208790	482370	1063500	2036700	LINR	-8.2e-003	2.39363421		0.99895	0.99000
1,2-Dichloroethane-D4	18280	61117	234380	535940	1157900	2164800	LINR	-2.6e-002	2.24866466		0.99827	0.99000
Toluene-D8		1.187	1.200	1.083	1.082	0.856	AVRG		1.08142956		12.745	15.000
P-Bromofluorobenzene		0.535	0.494	0.467	0.495	0.456	AVRG		0.48935126		6.260	15.000

FORM VI VOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93225-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Lab File ID: D1509 Lab Sample ID: WG93225-2

Date Analyzed: ~~08/01/11~~ 06/23/11 Time Analyzed: 1407

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-D 07/20/11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93225-LCS	WG93225-1	D1507	08/01/11	1248
02	5-DPT12-60-06202011	SE3574-1	D1510	08/01/11	1438
03	5-DPT12-40-06202011	SE3574-2	D1511	08/01/11	1508
04	5-DPT12-20-06202011	SE3574-3	D1512	08/01/11	1538
05	5-DPT12-12-06202011	SE3574-4	D1513	08/01/11	1608
06	5-DPT13-60-06202011	SE3574-5	D1514	08/01/11	1638
07	5-DPT13-40-06202011	SE3574-6	D1515	08/01/11	1708
08	5-DPT13-20-06202011	SE3574-7	D1516	08/01/11	1738
09	5-DPT14-60-06202011	SE3574-9	D1518	08/01/11	1840
10	5-DPT14-40-06202011	SE3574-10	D1519	08/01/11	1911
11	5-DPT14-20-06202011	SE3574-11	D1520	08/01/11	1942
12	5-DPT14-12-06202011	SE3574-12	D1521	08/01/11	2013
13	T-DUP01-12-06202011	SE3574-13	D1522	08/01/11	2044
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18				06/23/11	
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COMMENTS:

FORM IVVOA

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

06/23/11

Client:
Lab ID: WG93225-2
Client ID: Method Blank Sample
Project:
SDG: JAX02

Sample Date:
Received Date: 06/23/11 07/20/11
Extract Date: ~~01-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

Analysis Date: ~~01-AUG-11~~
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-jun-2011 11:27

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93225-2
Client ID: Method Blank Sample
Project:
SDG: JAX02

Sample Date: *07/20/11
Received Date: 06/23/11
Extract Date: 01-AUG-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93225

06/23/11
Analysis Date: 01-AUG-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-jun-2011 11:27

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		97.3	%					
1,2-Dichloroethane-d4		87.4	%					
Dibromofluoromethane		88.2	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Lab File ID: DB671 BFB Injection Date: ~~08/02/11~~ 06/24/11 07/20/11

Instrument ID: GCMS-D BFB Injection Time: 0753

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.3
75	30.0 - 60.0% of mass 95	45.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	Greater than 50.0% of mass 95	73.5
175	5.0 - 9.0% of mass 174	5.7 (7.8)1
176	95.0 - 101.0% of mass 174	71.0 (96.6)1
177	5.0 - 9.0% of mass 176	4.7 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050D24B	D1527	08/02/11	0907
02	WG93252-LCS	WG93252-1	D1529	08/02/11	1035
03	WG93252-BLANK	WG93252-2	D1531	08/02/11	1203
04	5-DPT13-40-06202011	SE3574-6DL	D1532	08/02/11	1233
05	5-DPT13-20-06202011	SE3574-7DL	D1533	08/02/11	1303
06	5-DPT13-12-06202011	SE3574-8	D1534	08/02/11	1333
07	5-DPT15-60-06202111	SE3574-14	D1535	08/02/11	1403
08	5-DPT15-40-06202111	SE3574-15	D1536	08/02/11	1433
09	5-DPT15-20-06202111	SE3574-16	D1537	08/02/11	1503
10	5-DPT15-12-06202111	SE3574-17	D1538	08/02/11	1533
11	5-DPT16-60-06202111	SE3574-18	D1539	08/02/11	1603
12	5-DPT16-40-06202111	SE3574-19	D1540	08/02/11	1633
13	5-DPT16-20-06202111	SE3574-20	D1541	08/02/11	1703
14	5-DPT16-12-06202111	SE3574-21	D1542	08/02/11	1733
15	5-DPT17-60-06202111	SE3574-22	D1543	08/02/11	1803
16	5-DPT17-40-06202111	SE3574-23	D1544	08/02/11	1833
17	5-DPT17-20-06202111	SE3574-24	D1545	08/02/11	1904
18	5-DPT17-12-06202111	SE3574-25	D1546	08/02/11	1934
19					
20					
21					
22					

FORM V VOA

06/24/11 07/20/11

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Instrument ID: GCMS-D Calibration Date: ~~08/02/11~~ 06/24/11 Time: 0907

Lab File ID: D1527 Init. Calib. Date(s): ~~08/01/11 08/01/11~~ 06/23/11

Init. Calib. Times: 0930 1201

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dichlorodifluoromethane	0.4090000	0.4001600	0.4001600	0.01	-2.16	20.00	AVRG	
Chloromethane	0.5560000	0.5782000	0.5782000	0.1	3.99	20.00	AVRG	
Vinyl chloride	0.5810000	0.5930600	0.5930600	0.01	2.08	20.00	AVRG	
Bromomethane	0.3030000	0.2952600	0.2952600	0.01	-2.55	20.00	AVRG	
Chloroethane	68.744000	50.000000	0.2801200	0.01	37.49	20.00	LINR	<--
Trichlorofluoromethane	0.6400000	0.6401500	0.6401500	0.01	0.02	20.00	AVRG	
1,1-Dichloroethene	0.3890000	0.3852600	0.3852600	0.1	-0.96	20.00	AVRG	
Carbon Disulfide	1.2380000	1.2323000	1.2323000	0.01	-0.46	20.00	AVRG	
Freon-113	0.3020000	0.2934600	0.2934600	0.01	-2.83	20.00	AVRG	
Methylene Chloride	0.5370000	0.5006700	0.5006700	0.01	-6.76	20.00	AVRG	
Acetone	0.1350000	0.1137700	0.1137700	0.01	-15.73	20.00	AVRG	
trans-1,2-Dichloroethene	0.5000000	0.4824500	0.4824500	0.01	-3.51	20.00	AVRG	
Methyl tert-butyl ether	1.2670000	1.2939000	1.2939000	0.01	2.12	20.00	AVRG	
1,1-Dichloroethane	0.8210000	0.7937800	0.7937800	0.1	-3.32	20.00	AVRG	
cis-1,2-Dichloroethene	0.5280000	0.5094000	0.5094000	0.01	-3.52	20.00	AVRG	
Chloroform	0.7910000	0.7686600	0.7686600	0.01	-2.82	20.00	AVRG	
Carbon Tetrachloride	0.3710000	0.3571300	0.3571300	0.01	-3.74	20.00	AVRG	
1,1,1-Trichloroethane	0.6800000	0.6548700	0.6548700	0.01	-3.70	20.00	AVRG	
2-Butanone	193.25000	250.00000	0.1715000	0.01	-22.70	20.00	2RDR	<--
Benzene	1.2660000	1.2519000	1.2519000	0.01	-1.11	20.00	AVRG	
Cyclohexane	0.7430000	0.6852800	0.6852800	0.01	-7.77	20.00	AVRG	
1,2-Dichloroethane	0.3520000	0.3463200	0.3463200	0.01	-1.61	20.00	AVRG	
Trichloroethene	0.2920000	0.2797400	0.2797400	0.01	-4.20	20.00	AVRG	
1,2-Dichloropropane	0.2920000	0.2873700	0.2873700	0.01	-1.58	20.00	AVRG	
Bromodichloromethane	0.3840000	0.3855900	0.3855900	0.01	0.41	20.00	AVRG	
cis-1,3-dichloropropene	0.4900000	0.5003100	0.5003100	0.01	2.10	20.00	AVRG	
Toluene	0.8470000	0.8402100	0.8402100	0.01	-0.80	20.00	AVRG	
4-methyl-2-pentanone	0.2080000	0.2128900	0.2128900	0.01	2.35	20.00	AVRG	
Tetrachloroethene	45.544000	50.000000	0.2645000	0.01	-8.91	20.00	2RDR	

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Instrument ID: GCMS-D Calibration Date: ~~08/02/11~~ 06/24/11 Time: 0907 JK 07/20/11

Lab File ID: D1527 Init. Calib. Date(s): ~~08/01/11 08/01/11~~ 06/23/11

Init. Calib. Times: 0930 1201

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.4020000	0.4147200	0.4147200	0.01	3.16	20.00	AVRG	
1,1,2-Trichloroethane	0.2120000	0.2080100	0.2080100	0.01	-1.88	20.00	AVRG	
Dibromochloromethane	0.2950000	0.3024000	0.3024000	0.01	2.51	20.00	AVRG	
1,2-Dibromoethane	0.2500000	0.2519500	0.2519500	0.01	0.78	20.00	AVRG	
2-Hexanone	0.1740000	0.1712600	0.1712600	0.01	-1.57	20.00	AVRG	
Chlorobenzene	0.9400000	0.9260000	0.9260000	0.3	-1.49	20.00	AVRG	
Ethylbenzene	0.5600000	0.5472200	0.5472200	0.01	-2.28	20.00	AVRG	
Xylenes (total)	0.0000000	0.6985600	0.6985600	0.01	0.00	20.00	AVRG	<-
Styrene	1.1310000	1.1760000	1.1760000	0.01	3.98	20.00	AVRG	
Bromoform	0.1820000	0.1911300	0.1911300	0.1	5.02	20.00	AVRG	
Isopropylbenzene	47.306000	50.000000	2.4665000	0.01	-5.39	20.00	2RDR	
1,1,2,2-Tetrachloroethane	0.6150000	0.6108500	0.6108500	0.3	-0.67	20.00	AVRG	
1,3-Dichlorobenzene	1.3970000	1.3614000	1.3614000	0.01	-2.55	20.00	AVRG	
1,4-Dichlorobenzene	1.4370000	1.3910000	1.3910000	0.01	-3.20	20.00	AVRG	
1,2-Dichlorobenzene	1.3480000	1.3128000	1.3128000	0.01	-2.61	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	0.1270000	0.1196400	0.1196400	0.01	-5.80	20.00	AVRG	
1,2,4-Trichlorobenzene	54.679000	50.000000	0.9840500	0.01	9.36	20.00	LINR	
Methyl Acetate	0.3140000	0.2986100	0.2986100	0.01	-4.90	20.00	AVRG	
Methylcyclohexane	0.8650000	0.8041000	0.8041000	0.01	-7.04	20.00	AVRG	
Dibromofluoromethane	48.892000	50.000000	0.4027700	0.01	-2.22	20.00	LINR	
1,2-Dichloroethane-D4	49.480000	50.000000	0.4475100	0.01	-1.04	20.00	LINR	
Toluene-D8	1.0820000	1.0827000	1.0827000	0.01	0.06	20.00	AVRG	
P-Bromofluorobenzene	0.4890000	0.4673300	0.4673300	0.01	-4.43	20.00	AVRG	

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93252-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Lab File ID: D1531 Lab Sample ID: WG93252-2

Date Analyzed: ~~08/02/11~~ 06/24/11 Time Analyzed: 1203

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-D

JK 07/20/11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93252-LCS	WG93252-1	D1529	08/02/11	1035
02	5-DPT13-40-06202011	SE3574-6DL	D1532	08/02/11	1233
03	5-DPT13-20-06202011	SE3574-7DL	D1533	08/02/11	1303
04	5-DPT13-12-06202011	SE3574-8	D1534	08/02/11	1333
05	5-DPT15-60-06202111	SE3574-14	D1535	08/02/11	1403
06	5-DPT15-40-06202111	SE3574-15	D1536	08/02/11	1433
07	5-DPT15-20-06202111	SE3574-16	D1537	08/02/11	1503
08	5-DPT15-12-06202111	SE3574-17	D1538	08/02/11	1533
09	5-DPT16-60-06202111	SE3574-18	D1539	08/02/11	1603
10	5-DPT16-40-06202111	SE3574-19	D1540	08/02/11	1633
11	5-DPT16-20-06202111	SE3574-20	D1541	08/02/11	1703
12	5-DPT16-12-06202111	SE3574-21	D1542	08/02/11	1733
13	5-DPT17-60-06202111	SE3574-22	D1543	08/02/11	1803
14	5-DPT17-40-06202111	SE3574-23	D1544	08/02/11	1833
15	5-DPT17-20-06202111	SE3574-24	D1545	08/02/11	1904
16	5-DPT17-12-06202111	SE3574-25	D1546	08/02/11	1934
17					
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30					

06/24/11

COMMENTS:

FORM IVVOA

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Report of Analytical Results

06/24/11 * 07/20/11

Client:
Lab ID: WG93252-2
Client ID: Method Blank Sample
Project:
SDG: JAX02

Sample Date:
Received Date:
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG~~-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-jun-2011 11:28

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
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Tel:(207) 874-2400 Fax:(207) 775-4029

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Report of Analytical Results

06/24/11

Client:
Lab ID: WG93252-2
Client ID: Method Blank Sample
Project:
SDG: JAX02

Sample Date:
Received Date:
Extract Date: ~~02-AUG-11~~
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93252

Analysis Date: ~~02-AUG-11~~ 07/20/11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-jun-2011 11:28

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		92.9	%					
1,2-Dichloroethane-d4		82.1	%					
Dibromofluoromethane		83.0	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Lab File ID: DB672 BFB Injection Date: ~~08/03/11~~ 06/25/11 JK 07/20/11

Instrument ID: GCMS-D BFB Injection Time: 0944

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.9
75	30.0 - 60.0% of mass 95	46.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	Greater than 50.0% of mass 95	78.1
175	5.0 - 9.0% of mass 174	5.3 (6.7)1
176	95.0 - 101.0% of mass 174	77.9 (99.8)1
177	5.0 - 9.0% of mass 176	4.9 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050D25A	D1550	08/03/11	1009
02	WG93285-LCS	WG93285-1	D1552A	08/03/11	1135
03	WG93285-BLANK	WG93285-2	D1554A	08/03/11	1247
04	TB-01	SE3574-31	D1555	08/03/11	1317
05	T-DUP02-40-06202111	SE3574-26	D1556	08/03/11	1347
06	5-DPT18-40-06202111	SE3574-28	D1557	08/03/11	1417
07	5-DPT18-20-06202111	SE3574-29	D1558	08/03/11	1447
08	5-DPT18-60-06202111	SE3574-27	D1559	08/03/11	1517
09	5-DPT18-12-06202111	SE3574-30	D1560	08/03/11	1547
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22					

FORM V VOA

06/25/11 JK 07/20/11

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Instrument ID: GCMS-D Calibration Date: ~~08/03/11~~ 06/25/11 Time: 1009

Lab File ID: D1550 Init. Calib. Date(s): ~~08/01/11 08/01/11~~ 06/23/11

Init. Calib. Times: 0930 1201

GC Column: RTX-VMS ID: 0.18 (mm)

JK 07/20/11

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dichlorodifluoromethane	0.4090000	0.4001600	0.4001600	0.01	-2.16	20.00	AVRG	
Chloromethane	0.5560000	0.5782000	0.5782000	0.1	3.99	20.00	AVRG	
Vinyl chloride	0.5810000	0.5930600	0.5930600	0.01	2.08	20.00	AVRG	
Bromomethane	0.3030000	0.2952600	0.2952600	0.01	-2.55	20.00	AVRG	
Chloroethane	75.878000	50.000000	0.2801200	0.01	51.76	20.00	LINR	<-
Trichlorofluoromethane	0.6400000	0.6401500	0.6401500	0.01	0.02	20.00	AVRG	
1,1-Dichloroethene	0.3890000	0.3852600	0.3852600	0.1	-0.96	20.00	AVRG	
Carbon Disulfide	1.2380000	1.2323000	1.2323000	0.01	-0.46	20.00	AVRG	
Freon-113	0.3020000	0.2934600	0.2934600	0.01	-2.83	20.00	AVRG	
Methylene Chloride	0.5370000	0.5006700	0.5006700	0.01	-6.76	20.00	AVRG	
Acetone	0.1350000	0.1137700	0.1137700	0.01	-15.73	20.00	AVRG	
trans-1,2-Dichloroethene	0.5000000	0.4824500	0.4824500	0.01	-3.51	20.00	AVRG	
Methyl tert-butyl ether	1.2670000	1.2939000	1.2939000	0.01	2.12	20.00	AVRG	
1,1-Dichloroethane	0.8210000	0.7937800	0.7937800	0.1	-3.32	20.00	AVRG	
cis-1,2-Dichloroethene	0.5280000	0.5094000	0.5094000	0.01	-3.52	20.00	AVRG	
Chloroform	0.7910000	0.7686600	0.7686600	0.01	-2.82	20.00	AVRG	
Carbon Tetrachloride	0.3710000	0.3571300	0.3571300	0.01	-3.74	20.00	AVRG	
1,1,1-Trichloroethane	0.6800000	0.6548700	0.6548700	0.01	-3.70	20.00	AVRG	
2-Butanone	176.67000	250.00000	0.1715000	0.01	-29.33	20.00	2RDR	<-
Benzene	1.2660000	1.2519000	1.2519000	0.01	-1.11	20.00	AVRG	
Cyclohexane	0.7430000	0.6852800	0.6852800	0.01	-7.77	20.00	AVRG	
1,2-Dichloroethane	0.3520000	0.3463200	0.3463200	0.01	-1.61	20.00	AVRG	
Trichloroethene	0.2920000	0.2797400	0.2797400	0.01	-4.20	20.00	AVRG	
1,2-Dichloropropane	0.2920000	0.2873700	0.2873700	0.01	-1.58	20.00	AVRG	
Bromodichloromethane	0.3840000	0.3855900	0.3855900	0.01	0.41	20.00	AVRG	
cis-1,3-dichloropropene	0.4900000	0.5003100	0.5003100	0.01	2.10	20.00	AVRG	
Toluene	0.8470000	0.8402100	0.8402100	0.01	-0.80	20.00	AVRG	
4-methyl-2-pentanone	0.2080000	0.2128900	0.2128900	0.01	2.35	20.00	AVRG	
Tetrachloroethene	49.709000	50.000000	0.2645000	0.01	-0.58	20.00	2RDR	

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Instrument ID: GCMS-D Calibration Date: ~~08/03/11~~ 06/25/11 Time: 1009

Lab File ID: D1550 Init. Calib. Date(s): ~~08/01/11 08/01/11~~ 06/23/11

Init. Calib. Times: 0930 1201

JK 07/20/11

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.4020000	0.4147200	0.4147200	0.01	3.16	20.00	AVRG	
1,1,2-Trichloroethane	0.2120000	0.2080100	0.2080100	0.01	-1.88	20.00	AVRG	
Dibromochloromethane	0.2950000	0.3024000	0.3024000	0.01	2.51	20.00	AVRG	
1,2-Dibromoethane	0.2500000	0.2519500	0.2519500	0.01	0.78	20.00	AVRG	
2-Hexanone	0.1740000	0.1712600	0.1712600	0.01	-1.57	20.00	AVRG	
Chlorobenzene	0.9400000	0.9260000	0.9260000	0.3	-1.49	20.00	AVRG	
Ethylbenzene	0.5600000	0.5472200	0.5472200	0.01	-2.28	20.00	AVRG	
Xylenes (total)	0.0000000	0.6985600	0.6985600	0.01	0.00	20.00	AVRG	<-
Styrene	1.1310000	1.1760000	1.1760000	0.01	3.98	20.00	AVRG	
Bromoform	0.1820000	0.1911300	0.1911300	0.1	5.02	20.00	AVRG	
Isopropylbenzene	49.187000	50.000000	2.4665000	0.01	-1.63	20.00	2RDR	
1,1,2,2-Tetrachloroethane	0.6150000	0.6108500	0.6108500	0.3	-0.67	20.00	AVRG	
1,3-Dichlorobenzene	1.3970000	1.3614000	1.3614000	0.01	-2.55	20.00	AVRG	
1,4-Dichlorobenzene	1.4370000	1.3910000	1.3910000	0.01	-3.20	20.00	AVRG	
1,2-Dichlorobenzene	1.3480000	1.3128000	1.3128000	0.01	-2.61	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	0.1270000	0.1196400	0.1196400	0.01	-5.80	20.00	AVRG	
1,2,4-Trichlorobenzene	54.442000	50.000000	0.9840500	0.01	8.88	20.00	LINR	
Methyl Acetate	0.3140000	0.2986100	0.2986100	0.01	-4.90	20.00	AVRG	
Methylcyclohexane	0.8650000	0.8041000	0.8041000	0.01	-7.04	20.00	AVRG	
Dibromofluoromethane	41.808000	50.000000	0.4027700	0.01	-16.38	20.00	LINR	
1,2-Dichloroethane-D4	40.284000	50.000000	0.4475100	0.01	-19.43	20.00	LINR	
Toluene-D8	1.0820000	1.0827000	1.0827000	0.01	0.06	20.00	AVRG	
P-Bromofluorobenzene	0.4890000	0.4673300	0.4673300	0.01	-4.43	20.00	AVRG	

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93285-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX02

Lab File ID: D1554A 06/25/11 K 07/20/11 Lab Sample ID: WG93285-2

Date Analyzed: ~~08/03/11~~ Time Analyzed: 1247

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93285-LCS	WG93285-1	D1552A	08/03/11	1135
02	TB-01	SE3574-31	D1555	08/03/11	1317
03	T-DUP02-40-06202111	SE3574-26	D1556	08/03/11	1347
04	5-DPT18-40-06202111	SE3574-28	D1557	08/03/11	1417
05	5-DPT18-20-06202111	SE3574-29	D1558	08/03/11	1447
06	5-DPT18-60-06202111	SE3574-27	D1559	08/03/11	1517
07	5-DPT18-12-06202111	SE3574-30	D1560	08/03/11	1547
08					
09					
10					
11				06/25/11	
12					
13					
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25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Report of Analytical Results

06/25/11 JK 07/20/11

Client:
Lab ID: WG93285-2
Client ID: Method Blank Sample
Project:
SDG: JAX02

Sample Date:
Received Date:
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-jun-2011 11:28

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

06/25/11 JK 07/25/11

Client:
Lab ID: WG93285-2
Client ID: Method Blank Sample
Project:
SDG: JAX02

Sample Date:
Received Date:
Extract Date: ~~03-AUG-11~~
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93285

Analysis Date: ~~03-AUG-11~~
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 26-jun-2011 11:28

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		88.7	%					
1,2-Dichloroethane-d4		77.6	%					
Dibromofluoromethane		77.8	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

NAS JACKSONVILLE
WATER DATA
JAX02

FRACTION	CHEMICAL	(45-DPT-DUP01-12-06202	UNITS	AX45-DPT14-12-0620201	RPD	D
OV	CARBON DISULFIDE	0.31 J	UG/L	ND	200.00	0.31
OV	CHLOROMETHANE	0.52 J	UG/L	ND	200.00	0.52
OV	CIS-1,2-DICHLOROETHENE	0.55 J	UG/L	0.53 J	3.70	0.02

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

NAS JACKSONVILLE
WATER DATA
JAX02

FRACTION	CHEMICAL	(45-DPT-DUP02-40-06212	UNITS	AX45-DPT18-40-0620211	RPD	D
OV	ACETONE	2.8 J	UG/L	3 J	6.90	0.20
OV	CARBON DISULFIDE	ND	UG/L	0.34 J	200.00	0.34
OV	CIS-1,2-DICHLOROETHENE	0.25 J	UG/L	ND	200.00	0.25
OV	TRICHLOROETHENE	0.87 J	UG/L	0.42 J	69.77	0.45

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**A. PATE**	**DATE:**	**AUGUST 15, 2011**
FROM:	**MICHELLE ALLEN**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION – VOC CTO 0112, NAS JACKSONVILLE SDG JAX03**		
SAMPLES:	16/Aqueous /VOC		

AX45-DPT-RINSATE-06222011	JAX45-DPT-DUP03-06222011
JAX45-DPT-DUP04-40-06222011	JAX45-DPT19-12-06222011
JAX45-DPT19-20-06222011	JAX45-DPT19-40-06222011
JAX45-DPT19-60-06222011	JAX45-DPT20-12-06222011
JAX45-DPT20-20-06222011	JAX45-DPT20-40-06222011
JAX45-DPT20-60-06222011	JAX45-DPT21-12-06222011
JAX45-DPT21-20-06222011	JAX45-DPT21-40-06222011
JAX45-DPT21-60-06222011	TB-02

OVERVIEW

The sample set for NAS Jacksonville SDG JAX03 consisted of fourteen (14) aqueous environmental samples, one (1) rinsate blank, and one (1) trip blank. The samples were analyzed for volatile organic compounds (VOC). Two field duplicate pairs were associated with this Sample Delivery Group (SDG); JAX45-DPT-DUP03-06222011/JAX45-DPT19-40-06222011 and JAX45-DUP04-40-06222011/JAX45-DPT20-40-0622201.

The samples were collected by TetraTech NUS on June 22, 2011 and analyzed by Katahdin Analytical Services. All analyses were conducted in accordance with SW-846 Method 8260B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- Data Completeness
- * Holding Times/Sample Preservation
- Initial/Continuing Calibrations
- Laboratory Method and Field Blank Results
- * Field Duplicate Results
- * Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

The text of this report is formatted to address only gross non-compliances resulting in the rejection of data and the elimination of false positives.

VOC

The continuing calibration performed on 06/24/11 on instrument GCMS-F @ 09:41 had a Percent Drift (%Drift) for chloroethane greater than the 20% quality control limit. In addition the Percent Differences (%Ds) for carbon

disulfide and cyclohexane exceeded the 20% quality control criteria. Samples AX45-DPT-RINSATE-06222011, JAX45-DPT-DUP03-06222011, JAX45-DPT19-12-06222011, JAX45-DPT19-40-06222011, JAX45-DPT19-60-06222011, JAX45-DPT20-20-06222011, JAX45-DPT20-60-06222011, and TB-02 were affected. The positive and non-detected results reported for these compounds in the affected samples were qualified as estimated, (J) and (UJ), respectively.

The %D for carbon disulfide from the continuing calibration performed on 06/25/11 on instrument GCMS-F @ 10:23 exceeded the 20% quality control limit. The positive and non-detected results reported for carbon disulfide in the affected samples, JAX45-DPT-DUP04-40-06222011, JAX45-DPT20-40-06222011, and JAX45-DPT21-40-06222011, were qualified as estimated, (J) and (UJ), respectively.

The continuing calibration performed on 06/27/11 on instrument GCMS-F @ 07:45 had a %Drift for chloroethane greater than the 20% quality control limit. In addition the %Ds for carbon disulfide 1,1,2-trichlorotrifluoroethane (Freon 113), 1,1,1-trichloroethane, cyclohexane, and methylcyclohexane. Samples JAX45-DPT19-20-06222011, JAX45-DPT20-12-06222011, JAX45-DPT21-12-06222011, JAX45-DPT21-20-06222011, and JAX45-DPT21-60-06222011 were affected.

The following contaminant was detected in the trip blank, TB-02, at the following maximum concentration:

Analyte	Maximum Concentration (µg/L)	Action Level (µg/L)
Acetone [1]	2.8	28

[1] Maximum concentration present in the trip blank, TB-02, affecting all samples, with the exception of the rinsate blank, AX45-DPT-RINSATE-06222011.

An action level of 10X the maximum contaminant level has been used for the common laboratory contaminant acetone to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Affected sample results below the action level were qualified as non-detected, (U), due to trip blank contamination.

NOTES

The continuing calibration Form VII from instrument GCMS-F on 06/27/11 @ 07:45 had the incorrect Relative Response Factors (RRFs). The laboratory was contacted and the form was corrected. No validation qualification was necessary.

Acetone and 2-butanone were detected in the rinsate blank, AX45-DPT-RINSATE-06222011.

Carbon Disulfide was detected below the Limit of Quantitation (LOQ) in the environmental sample, JAX45-DPT20-40-06222011, but not in the field duplicate sample, JAX45-DPT-DUP04-40-06222011. No action was necessary because the difference between the positive and non-detected results was less than 2X the LOQ.

The trip blank sample, TB-02, associated with the samples in this SDG was labeled TB-01 on the Chain of Custody (COC) form. However, a trip blank was previously identified as TB-01 in SDG JAX02, therefore, the trip blank associated with these samples was renamed the unique identification, TB-02.

Positive results reported below the LOQ but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results were reported to the MDL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: A continuing calibration Form VII was incorrect. Some %Drift and/or %Ds exceeded the quality control limit.

Other Factors Affecting Data Quality: Contaminants were detected in the trip and rinsate blanks. Positive results reported below the LOQ but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), SW-846 Method 8260B analytical and reporting protocols, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Michelle L. Allen
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED LABORATORY RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC.
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 01511	NSAMPLE	AX45-DPT-RINSATE-06222011			JAX45-DPT19-12-06222011			JAX45-DPT19-20-06222011			JAX45-DPT19-40-06222011		
SDG: JAX03	LAB_ID	SE3610-15			SE3610-4			SE3610-3			SE3610-2		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	UJ	C	0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	UJ	C	0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		20			1.3	U		1.3	U		1.3	U	
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		42			3.3	U	B	3.1	U	B	3.2	U	B
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	UJ	C	0.33	J	CP	0.6	J	CP	0.25	UJ	C
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	UJ	C	0.55	UJ	C
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.36	U		0.36	U		0.77	J	P	0.36	U	
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	UJ	C	0.31	UJ	C	0.31	UJ	C	0.31	UJ	C
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT19-60-06222011			JAX45-DPT20-12-06222011			JAX45-DPT20-20-06222011			JAX45-DPT20-40-06222011		
SDG: JAX03	LAB_ID	SE3610-1			SE3610-9			SE3610-8			SE3610-7		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	UJ	C	0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	UJ	C	0.31	U		0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		3.1	U	B	4.1	U	B	5.7	U	B	4.4	U	B
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	UJ	C	0.25	UJ	C	0.4	J	CP	0.42	J	CP
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	UJ	C	0.55	U	
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.36	U		0.65	J	P	0.36	U		0.36	U	
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	UJ	C	0.31	UJ	C	0.31	UJ	C	0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT20-60-06222011			JAX45-DPT21-12-06222011			JAX45-DPT21-20-06222011			JAX45-DPT21-40-06222011		
SDG: JAX03	LAB_ID	SE3610-6			SE3610-14			SE3610-13			SE3610-12		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	UJ	C	0.2	UJ	C	0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	UJ	C	0.31	UJ	C	0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		2.2	U	B	3.5	U	B	2.6	U	B	4.8	U	B
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	UJ	C	0.25	UJ	C	0.25	UJ	C	0.25	UJ	C
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	UJ	C	0.55	U	
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.36	U		0.36	U		0.36	U		0.36	U	
CIS-1,2-DICHLOROETHENE		0.21	U		0.96	J	P	0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	UJ	C	0.31	UJ	C	0.31	UJ	C	0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT21-60-06222011			JAX45-DPT-DUP03-06222011			JAX45-DPT-DUP04-40-06222011			TB-02		
SDG: JAX03	LAB_ID	SE3610-11			SE3610-5			SE3610-10			SE3610-16		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF				JAX45-DPT19-40-06222011			JAX45-DPT20-40-06222011					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	UJ	C	0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	UJ	C	0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		2.9	U	B	3.1	J	B	4.4	U	B	2.8	J	P
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	UJ	C	0.25	UJ	C	0.25	UJ	C	0.25	U	C
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	UJ	C	0.55	UJ	C	0.55	U		0.55	UJ	C
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.5	J	P	0.36	U		0.36	U		0.36	U	
CIS-1,2-DICHLOROETHENE		0.21	U		0.21	U		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	UJ	C	0.31	UJ	C	0.31	U		0.31	UJ	C
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	AX45-DPT-RINSATE-06222011			JAX45-DPT19-12-06222011			JAX45-DPT19-20-06222011			JAX45-DPT19-40-06222011		
SDG: JAX03	LAB_ID	SE3610-15			SE3610-4			SE3610-3			SE3610-2		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	UJ	C	0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.28	U		0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT19-60-06222011			JAX45-DPT20-12-06222011			JAX45-DPT20-20-06222011			JAX45-DPT20-40-06222011		
SDG: JAX03	LAB_ID	SE3610-1			SE3610-9			SE3610-8			SE3610-7		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	UJ	C	0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.28	U		0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT20-60-06222011			JAX45-DPT21-12-06222011			JAX45-DPT21-20-06222011			JAX45-DPT21-40-06222011		
SDG: JAX03	LAB_ID	SE3610-6			SE3610-14			SE3610-13			SE3610-12		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	UJ	C	0.3	UJ	C	0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.28	U		1.7		
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT21-60-06222011			JAX45-DPT-DUP03-06222011			JAX45-DPT-DUP04-40-06222011			TB-02		
SDG: JAX03	LAB_ID	SE3610-11			SE3610-5			SE3610-10			SE3610-16		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF				JAX45-DPT19-40-06222011			JAX45-DPT20-40-06222011					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	UJ	C	0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		0.28	U		0.28	U		0.28	U		0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH
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Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-15
Client ID: RINSATE-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone		42.	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone		20.	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-15
Client ID: RINSATE-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		108.	%					
Toluene-d8		111.	%					
1,2-Dichloroethane-d4		103.	%					
Dibromofluoromethane		106.	%					

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Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-5
Client ID: DPT-DUP03-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.1	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-5
Client ID: DPT-DUP03-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		97.0	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		104.	%					
Dibromofluoromethane		102.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-10
Client ID: DUP04-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	4.4	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-10
Client ID: DUP04-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		114.	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		119.	%					
Dibromofluoromethane		111.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-4
Client ID: DPT19-12-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.33	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.3	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-4
Client ID: DPT19-12-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		90.4	%					
Toluene-d8		81.2	%					
1,2-Dichloroethane-d4		90.3	%					
Dibromofluoromethane		87.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-3
Client ID: DPT19-20-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.77	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.60	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.1	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-3
Client ID: DPT19-20-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		96.4	%					
Toluene-d8		105.	%					
1,2-Dichloroethane-d4		104.	%					
Dibromofluoromethane		104.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-2
Client ID: DPT19-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-2
Client ID: DPT19-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		112.	%					
Toluene-d8		111.	%					
1,2-Dichloroethane-d4		116.	%					
Dibromofluoromethane		113.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-1
Client ID: DPT19-60-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.1	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-1
Client ID: DPT19-60-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		111.	%					
Toluene-d8		109.	%					
1,2-Dichloroethane-d4		105.	%					
Dibromofluoromethane		108.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-9
Client ID: DPT20-12-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.65	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	4.1	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-9
Client ID: DPT20-12-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		102.	%					
Toluene-d8		94.8	%					
1,2-Dichloroethane-d4		108.	%					
Dibromofluoromethane		104.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-8
Client ID: DPT20-20-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.40	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone		5.7	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-8
Client ID: DPT20-20-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		78.4	%					
Toluene-d8		71.5	%					
1,2-Dichloroethane-d4		96.6	%					
Dibromofluoromethane		89.2	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-7
Client ID: DPT20-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.42	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	4.4	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-7
Client ID: DPT20-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		108.	%					
Toluene-d8		100.	%					
1,2-Dichloroethane-d4		123.	%					
Dibromofluoromethane		111.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-6
Client ID: DPT20-60-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Tel:(207) 874-2400 Fax:(207) 775-4029

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-6
Client ID: DPT20-60-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		102.	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		116.	%					
Dibromofluoromethane		106.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-14
Client ID: DPT21-12-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	3.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	I	0.96	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-14
Client ID: DPT21-12-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		110.	%					
1,2-Dichloroethane-d4		115.	%					
Dibromofluoromethane		111.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-13
Client ID: DPT21-20-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.6	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-13
Client ID: DPT21-20-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		112.	%					
Toluene-d8		112.	%					
1,2-Dichloroethane-d4		119.	%					
Dibromofluoromethane		113.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-12
Client ID: DPT21-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	J	4.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		1.7	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-12
Client ID: DPT21-40-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		104.	%					
Toluene-d8		89.2	%					
1,2-Dichloroethane-d4		123.	%					
Dibromofluoromethane		107.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-11
Client ID: DPT21-60-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.50	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.9	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-11
Client ID: DPT21-60-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		103.	%					
1,2-Dichloroethane-d4		104.	%					
Dibromofluoromethane		108.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-16
Client ID: TB-02
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-16
Client ID: TB-02
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		110.	%					
Toluene-d8		110.	%					
1,2-Dichloroethane-d4		108.	%					
Dibromofluoromethane		109.	%					

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APPENDIX C

SUPPORT DOCUMENTATION

SDG JAX03

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	JAX45-SB14-SB-0624201	SE3674-015	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-DUP01-06242011	SE3674-013	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB12-SB-0624201	SE3674-012	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB11-SB-0624201	SE3674-011	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB10-SB-0624201	SE3674-010	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB09-SB-0624201	SE3674-009	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB08-SB-0624201	SE3674-008	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB07-SB-0624201	SE3674-007	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB06-SB-0624201	SE3674-006	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB05-SB-0624201	SE3674-005	NM	06/23/2011	06/29/2011	06/30/2011	6	1	7
HG	MG/KG	JAX45-SB13-SB-0624201	SE3674-014	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
M	MG/KG	JAX45-SB05-SB-0624201	SE3674-005	NM	06/23/2011	06/27/2011	06/27/2011	4	0	4
M	MG/KG	JAX45-SB11-SB-0624201	SE3674-011	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB06-SB-0624201	SE3674-006	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB07-SB-0624201	SE3674-007	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	JAX45-SB08-SB-0624201	SE3674-008	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB09-SB-0624201	SE3674-009	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB10-SB-0624201	SE3674-010	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB12-SB-0624201	SE3674-012	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB14-SB-0624201	SE3674-015	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-DUP01-06242011	SE3674-013	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB13-SB-0624201	SE3674-014	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
TS	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	TB-03	SE3674-17	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/29/2011	06/30/2011	6	1	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TS	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
OS	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB10-SB-0624201	SE3674-10	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB11-SB-0624201	SE3674-11	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB12-SB-0624201	SE3674-12	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB13-SB-0624201	SE3674-14	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB14-SB-0624201	SE3674-15	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB09-SB-0624201	SE3674-9	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB08-SB-0624201	SE3674-8	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB07-SB-0624201	SE3674-7	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB06-SB-0624201	SE3674-6	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	%	JAX45-SB05-SB-0624201	SE3674-5	SUR	06/23/2011	06/27/2011	06/29/2011	4	2	6
OS	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
OS	%	JAX45-DUP01-06242011	SE3674-13	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
OS	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OV	%	JAX45-SB05-SB-0624201	SE3674-5	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DUP04-40-062220	SE3610-10	SUR	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DUP04-40-062220	SE3610-10	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DUP01-06242011	SE3674-13	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT-DUP03-06222	SE3610-5	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT22-60-062320	SE3674-1	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/30/2011	06/30/2011	6	0	6
OV	%	JAX45-DPT22-60-062320	SE3674-1	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT22-40-062320	SE3674-2	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT-DUP03-06222	SE3610-5	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB13-SB-0624201	SE3674-14	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB12-SB-0624201	SE3674-12	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB11-SB-0624201	SE3674-11	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-SB10-SB-0624201	SE3674-10	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB06-SB-0624201	SE3674-6	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB09-SB-0624201	SE3674-9	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB08-SB-0624201	SE3674-8	SUR	06/24/2011	06/30/2011	06/30/2011	6	0	6
OV	%	JAX45-DPT22-12-062320	SE3674-4	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB07-SB-0624201	SE3674-7	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT22-40-062320	SE3674-2	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT20-20-062220	SE3610-8	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	TB-04	SE3674-18	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	AX45-DPT-RINSATE-0622	SE3610-15	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	AX45-DPT-RINSATE-0622	SE3610-15	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-12-062220	SE3610-4	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-12-062220	SE3610-4	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-20-062220	SE3610-3	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT19-20-062220	SE3610-3	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT19-40-062220	SE3610-2	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-40-062220	SE3610-2	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-60-062220	SE3610-1	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-60-062220	SE3610-1	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT20-12-062220	SE3610-9	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT22-20-062320	SE3674-3	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT21-12-062220	SE3610-14	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT22-12-062320	SE3674-4	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT21-60-062220	SE3610-11	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT21-60-062220	SE3610-11	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT21-40-062220	SE3610-12	SUR	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT21-40-062220	SE3610-12	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT20-12-062220	SE3610-9	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT21-20-062220	SE3610-13	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT20-20-062220	SE3610-8	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT21-12-062220	SE3610-14	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT20-60-062220	SE3610-6	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT20-60-062220	SE3610-6	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT20-40-062220	SE3610-7	SUR	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT20-40-062220	SE3610-7	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT22-20-062320	SE3674-3	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT21-20-062220	SE3610-13	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-SBRINSATE-0624	SE3674-16	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SBRINSATE-0624	SE3674-16	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	TB-02	SE3610-16	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	TB-02	SE3610-16	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	TB-03	SE3674-17	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	TB-04	SE3674-18	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB14-SB-0624201	SE3674-15	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	TB-03	SE3674-17	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	TB-03	SE3674-17	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/30/2011	06/30/2011	6	0	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/L	TB-02	SE3610-16	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT22-12-062320	SE3674-4	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-12-062320	SE3674-4DL	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-20-062320	SE3674-3	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-20-062320	SE3674-3DL	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-40-062320	SE3674-2	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-60-062320	SE3674-1	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DUP04-40-062220	SE3610-10	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	UG/L	JAX45-DPT21-60-062220	SE3610-11	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-SBRINSATE-0624	SE3674-16	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/L	JAX45-DPT-DUP03-06222	SE3610-5	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT19-12-062220	SE3610-4	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	TB-04	SE3674-18	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/L	AX45-DPT-RINSATE-0622	SE3610-15	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT21-40-062220	SE3610-12	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	UG/L	JAX45-DPT19-20-062220	SE3610-3	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT19-40-062220	SE3610-2	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT19-60-062220	SE3610-1	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT20-20-062220	SE3610-8	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT20-40-062220	SE3610-7	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	UG/L	JAX45-DPT20-12-062220	SE3610-9	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT21-20-062220	SE3610-13	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT21-12-062220	SE3610-14	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT20-60-062220	SE3610-6	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
SIM	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
SIM	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	07/01/2011	3	4	7
SIM	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB11-SB-0624201	SE3674-11DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-DUP01-06242011	SE3674-13DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
SIM	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	07/01/2011	3	4	7
SIM	UG/KG	JAX45-SB06-SB-0624201	SE3674-6DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB09-SB-0624201	SE3674-9RA	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	JAX45-SB07-SB-0624201	SE3674-7DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
PCB	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/28/2011	4	1	5
PCB	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/28/2011	4	1	5
PCB	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
TPH	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/28/2011	07/02/2011	5	4	9
TPH	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	MG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/28/2011	07/02/2011	5	4	9
TPH	MG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8

SE3610

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2267 | PAGE 1 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN ANALYTICAL SERVICES / KELLY PERKINS
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: ZACH SCRIBNER	PHONE NUMBER: (904) 636-6125	ADDRESS: 600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE: SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☑ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: HCl

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs	COMMENTS
6/20	0945	JAX45-DPT19-60-06202011	(*)			GW	G	9	(*) 9	(*) - INDICATES MS/MSD - cool to 4°C
6	1005	JAX45-DPT19-40-06222011						3	3	
	1020	JAX45-DPT19-20-06222011	(*)					9	(*) 9	
	1035	JAX45-DPT19-12-06222011						3	3	
	0000	JAX45-DPT-DUP03-06222011						3	3	
	1150	JAX45-DPT20-60-06222011						3	3	
	1205	JAX45-DPT20-40-06222011						3	3	
	1220	JAX45-DPT20-20-06222011						3	3	
	1235	JAX45-DPT20-12-06222011						3	3	
	XXXX	JAX45-DPT-DUP04-40-06222011						3	3	
	1520	JAX45-DPT21-60-06222011								
	1535	JAX45-DPT21-40-06222011								
	1550	JAX45-DPT21-20-06222011								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/22/11	1700	1. RECEIVED BY	6/23/11	1000
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TINUS-001

SE3610

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2268 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN DATE	(904) 636-6125	KATAHDIN ANALYTICAL SERVICES / KELLY PERKINS
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		ZACH SCRIBNER	(904) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE
				SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)								COMMENTS
									PRESERVATIVE USED								
									TYPE OF ANALYSIS	VOC							
6/22	1605	JAX45-DPT21-12-06222011				GW	G	3	3								← COOL to 4°C
6/22	1630	JAX45-DPT-RINSATE-06222011				QC	G	3	3								← RINSATE
↓	1635	TB-01 2				QC	-	2	2								← ~~TEMP BL~~ TRIP BLANK
		MA 7/26/11															

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/22/11	1700	1. RECEIVED BY	6/23/11	1000
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
TETRA TECH NUS
CASE NAS JAX
SDG: JAX03
SE3610

Sample Receipt

The following samples were received on June 23, 2011 and were logged in under Katahdin Analytical Services work order number SE3610 for a hardcopy due date of July 12, 2011.

KATAHDIN Sample No.	TTNUS Sample Identification
SE3610-1	DPT19-60-06222011
SE3610-2	DPT19-40-06222011
SE3610-3	DPT19-20-06222011
SE3610-4	DPT19-12-06222011
SE3610-5	DPT-DUP03-06222011
SE3610-6	DPT20-60-06222011
SE3610-7	DPT20-40-06222011
SE3610-8	DPT20-20-06222011
SE3610-9	DPT20-12-06222011
SE3610-10	DUP04-40-06222011
SE3610-11	DPT21-60-06222011
SE3610-12	DPT21-40-06222011
SE3610-13	DPT21-20-06222011
SE3610-14	DPT21-12-06222011
SE3610-15	RINSATE-06222011
SE3610-16	TB-02

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

The client IDs on the Chain of Custody exceeds the 19-character limit of the Katahdin Analytical Information Management System. Therefore, the first characters "JAX45-" in the client IDs for SE3610-1 through -9 and SE3610-11 through -14 were omitted on all forms. In addition, the first characters "JAX45-DPT-" in the client ID for SE3610-10 and SE3610-15 were omitted on all forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Kelly Perkins**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of SDG JAX03 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, and III 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or for the specific methods listed below or on the Report of Analysis.

8260B Analysis

Sample SE3610 was used for the matrix spike (MS) and matrix spike duplicate (MSD), as per client request.

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

The initial calibration analyzed on the D instrument on 6/28/11 had a %RSD value for acetone that exceeded the method acceptance limit of 15%. The analyte met the acceptance criteria for the linear and quadratic calibration models. Although the %RSD is greater than 15%, acetone was calibrated with the average model since this calibration model is more accurate for this analyte at concentrations near the PQL than either the linear or quadratic calibration models. The independent check standard (file D1591), associated with this calibration had high concentrations for the analytes acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard is the same source as the LCS. Since the associated LCS WG93448-1 had recoveries for these analytes that were within the LCS acceptance limits, the associated samples were not reanalyzed. The independent check standard recovery report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The independent check standard (file F4066a), associated with the initial calibration on 06/23/2011 had a high concentration for the target analyte chloroethane, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. There were three analytical batches associated with this initial calibration and the three LCS's WG93261-1, WG93284-1, and WG93372-1 had acceptable LCS recoveries. Therefore, the associated samples were not reanalyzed. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The calibration verification standards (CV's) (files F4064, F4085, and F4093) had high responses for the analytes chloroethane, carbon disulfide, and/or cyclohexane. These responses resulted in %D's that were greater than the DoD QSM version 4.1 acceptance limits of 20%. Since these analytes were not detected above the LOQ in the associated samples, the samples were not reanalyzed.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The LCS WG93284-1 had three spiked target analytes with recoveries that were high and outside of the laboratory established acceptance limits. The DoD QSM allowable number of exceedances for 48 target analytes is two analytes. Since a high recovery would indicate a high bias and these target analytes were not detected above the LOQ in the associated samples, the samples were not reanalyzed.

The target analyte 1,2,4-trichlorobenzene was detected above ½ the reporting limit, but below the LOQ, in the method blank WG93372-2. According to the DoD QSM section D.1.1.1, a method blank is considered to be contaminated if the concentration of any target analyte in the blank exceeds ½ the reporting limit. Since this analyte was not detected in the associated samples, no further action was taken.

Samples SE3610-8, 11, 14, and 16 were manually integrated for the analytes acetone. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

There were no other protocol deviations or observations noted by the organics laboratory staff.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Deborah J. Radeau for 7-14-11

Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin Analytical Services, Inc. **Sample Receipt Condition Report**

Client:	Tetra Tech	KAS PM:	KAP	Sampled By:	Client
Project:		KIMS Entry By:	GN	Delivered By:	Fed Ex
KAS Work Order#:	SE3610	KIMS Review By:		Received By:	DD
SDG #:		Cooler: 1 of 1		Date/Time Rec.:	6/23/11 1000

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 1.8
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea	✓				
Soil/Sediment: Received in airtight container?	✓				
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?	✓				
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol,				✓	
TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9 Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

TB vials say TB-02

00000016

KATAHDIN ANALYTICAL SERVICES - FLORIDA DATA QUALIFIERS

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

L Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range of highest calibration standard) and the calibration curve is known to exhibit a negative deflection.

J Estimated value. A justification will be included in the narrative for any result that has been flagged with a "J".

V Indicates the analyte was detected in the sample and the associated method blank.

N Presumptive evidence of a compound based on a mass spectral library search.

Q Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis

Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-15
Client ID: RINSATE-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone		42.	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone		20.	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-15
Client ID: RINSATE-06222011
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		108.	%					
Toluene-d8		111.	%					
1,2-Dichloroethane-d4		103.	%					
Dibromofluoromethane		106.	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-16
Client ID: TB-02
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	2.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3610-16
Client ID: TB-02
Project: NAS JAX
SDG: JAX03

Sample Date: 22-JUN-11
Received Date: 23-JUN-11
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-JUN-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		110.	%					
Toluene-d8		110.	%					
1,2-Dichloroethane-d4		108.	%					
Dibromofluoromethane		109.	%					

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http://www.katahdinlab.com

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: DB674 BFB Injection Date: 06/28/11

Instrument ID: GCMS-D BFB Injection Time: 0919

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	48.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	79.3
175	5.0 - 9.0% of mass 174	6.0 (7.6)1
176	95.0 - 101.0% of mass 174	76.1 (95.9)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050D28B	D1585	06/28/11	1035
02		VSTD020D28A	D1586	06/28/11	1118
03		VSTD005D28A	D1587	06/28/11	1148
04		VSTD001D28A	D1588	06/28/11	1218
05		VSTD200D28A	D1589	06/28/11	1248
06		VSTD100D28A	D1590	06/28/11	1318
07		IND CHECK	D1591A	06/28/11	1401
08					
09					
10					
11					
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20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX03

Instrument ID: GCMS-D Calibration Date(s): 06/28/11 06/28/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1035 1318

LAB FILE ID: RF1: D1588 RF5: D1587 RF20: D1586
RF50: D1585 RF100: D1590 RF200: D1589

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2	
m+p-Xylenes	0.669	0.749	0.774	0.739	0.700	0.566	AVRG		0.69956467	10.729	15.000	
o-Xylene	0.590	0.694	0.734	0.732	0.743	0.698	AVRG		0.69848053	8.126	15.000	
Dichlorodifluoromethane	0.792	0.584	0.632	0.608	0.622	0.618	AVRG		0.64274297	11.658	15.000	
Chloromethane	0.548	0.441	0.553	0.583	0.627	0.609	AVRG		0.56032768	11.745	15.000	
Vinyl chloride	0.699	0.573	0.663	0.638	0.648	0.614	AVRG		0.63916372	6.745	15.000	
Bromomethane	4998	21827	115900	330330	707790	1495400	LINR	5.489e-002	3.30824857	0.99875	0.99000	
Chloroethane	0.442	0.353	0.375	0.371	0.299	0.353	AVRG		0.36567019	12.708	15.000	
Trichlorofluoromethane	0.909	0.699	0.759	0.738	0.730	0.710	AVRG		0.75745075	10.177	15.000	
1,1-Dichloroethene	0.374	0.421	0.441	0.431	0.437	0.432	AVRG		0.42280450	5.804	15.000	
Carbon Disulfide	1.270	1.407	1.529	1.462	1.425	1.318	AVRG		1.40165496	6.761	15.000	
Freon-113	0.375	0.331	0.338	0.323	0.317	0.321	AVRG		0.33415629	6.333	15.000	
Methylene Chloride	0.573	0.557	0.542	0.548	0.549	0.534	AVRG		0.55061652	2.469	15.000	
Acetone	0.138	0.130	0.112	0.088	0.107	0.074	AVRG		0.10820697	22.501	15.000	<-
trans-1,2-Dichloroethene	0.465	0.502	0.546	0.530	0.545	0.536	AVRG		0.52064885	6.075	15.000	
Methyl tert-butyl ether	1.128	1.173	1.255	1.249	1.222	1.050	AVRG		1.17948918	6.747	15.000	
1,1-Dichloroethane	0.737	0.838	0.862	0.861	0.860	0.822	AVRG		0.83018846	5.821	15.000	
cis-1,2-Dichloroethene	0.508	0.546	0.569	0.570	0.571	0.562	AVRG		0.55427171	4.424	15.000	
Chloroform	0.754	0.809	0.840	0.854	0.858	0.819	AVRG		0.82230188	4.669	15.000	
Carbon Tetrachloride	0.290	0.358	0.395	0.394	0.406	0.410	AVRG		0.37555625	12.153	15.000	
1,1,1-Trichloroethane	0.579	0.692	0.739	0.733	0.746	0.727	AVRG		0.70272969	9.017	15.000	
2-Butanone	0.146	0.166	0.157	0.130	0.149	0.112	AVRG		0.14332909	13.771	15.000	
Benzene	1.275	1.394	1.412	1.380	1.326	1.131	AVRG		1.31965417	7.977	15.000	
Cyclohexane	0.701	0.789	0.823	0.769	0.793	0.783	AVRG		0.77633852	5.286	15.000	
1,2-Dichloroethane	0.332	0.378	0.376	0.377	0.370	0.357	AVRG		0.36488400	4.947	15.000	
Trichloroethene	0.292	0.313	0.321	0.313	0.315	0.312	AVRG		0.31115660	3.170	15.000	
1,2-Dichloropropane	0.273	0.292	0.302	0.309	0.309	0.300	AVRG		0.29776203	4.570	15.000	
Bromodichloromethane	0.290	0.360	0.391	0.412	0.418	0.408	AVRG		0.37994298	12.796	15.000	
cis-1,3-dichloropropene	0.351	0.432	0.494	0.527	0.522	0.503	AVRG		0.47184239	14.447	15.000	
Toluene	0.837	0.916	0.934	0.916	0.901	0.807	AVRG		0.88516127	5.764	15.000	
4-methyl-2-pentanone	0.142	0.185	0.187	0.172	0.173	0.136	AVRG		0.16579143	13.133	15.000	
Tetrachloroethene	0.292	0.292	0.303	0.290	0.309	0.297	AVRG		0.29721936	2.604	15.000	
trans-1,3-Dichloropropene	9583	64760	296480	803050	1634500	3165600	LINR	4.706e-003	2.41674986	0.99972	0.99000	
1,1,2-Trichloroethane	0.176	0.209	0.213	0.212	0.213	0.209	AVRG		0.20539176	7.152	15.000	
Dibromochloromethane	6848	44898	198840	549400	1148700	2340500	LINR	2.36e-002	3.14310117	0.99984	0.99000	
1,2-Dibromoethane	0.189	0.233	0.248	0.252	0.263	0.260	AVRG		0.24092333	11.447	15.000	
2-Hexanone	0.104	0.145	0.144	0.129	0.139	0.111	AVRG		0.12881305	13.417	15.000	
Chlorobenzene	0.931	1.009	1.021	1.004	0.966	0.845	AVRG		0.96275002	6.915	15.000	
Ethylbenzene	0.533	0.567	0.600	0.585	0.593	0.566	AVRG		0.57386391	4.239	15.000	
Xylenes (total)							AVRG				0.000	
Styrene	0.807	1.091	1.209	1.237	1.188	1.032	AVRG		1.09410694	14.684	15.000	
Bromoform	3551	22901	108600	311440	688180	1444300	LINR	5.142e-002	5.09083381	0.99896	0.99000	
Isopropylbenzene	2.139	2.506	2.648	2.513	2.358	1.926	AVRG		2.34853907	11.482	15.000	
1,1,2,2-Tetrachloroethane	0.467	0.546	0.541	0.534	0.552	0.523	AVRG		0.52726517	5.944	15.000	
1,3-Dichlorobenzene	1.327	1.460	1.447	1.422	1.400	1.261	AVRG		1.38619064	5.582	15.000	

FORM 6

VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX03

Instrument ID: GCMS-D Calibration Date(s): 06/28/11 06/28/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1035 1318

LAB FILE ID: RF1: D1588 RF5: D1587 RF20: D1586
RF50: D1585 RF100: D1590 RF200: D1589

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dichlorobenzene	1.490	1.506	1.488	1.444	1.432	1.281	AVRG		1.44026168	5.761	15.000
1,2-Dichlorobenzene	1.262	1.372	1.364	1.342	1.340	1.214	AVRG		1.31585039	4.804	15.000
1,2-Dibromo-3-Chloropropa	0.081	0.094	0.084	0.085	0.102	0.093	AVRG		9.008e-002	8.690	15.000
1,2,4-Trichlorobenzene	1.067	1.042	1.030	0.978	0.984	0.882	AVRG		0.99724032	6.614	15.000
Methyl Acetate	0.304	0.276	0.264	0.253	0.262	0.233	AVRG		0.26523152	8.888	15.000
Methylcyclohexane	1.068	0.838	0.916	0.872	0.855	0.840	AVRG		0.89819167	9.793	15.000
Dibromofluoromethane	0.482	0.402	0.445	0.438	0.449	0.443	AVRG		0.44312310	5.750	15.000
1,2-Dichloroethane-D4	0.516	0.475	0.488	0.461	0.463	0.445	AVRG		0.47467211	5.213	15.000
Toluene-D8		1.101	1.226	1.125	1.065	0.903	AVRG		1.08388363	10.860	15.000
P-Bromofluorobenzene		0.461	0.501	0.473	0.485	0.485	AVRG		0.48116108	3.146	15.000

FORM VI VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: DB675 BFB Injection Date: 06/29/11

Instrument ID: GCMS-D BFB Injection Time: 0914

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	48.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	Greater than 50.0% of mass 95	80.3
175	5.0 - 9.0% of mass 174	4.7 (5.9)1
176	95.0 - 101.0% of mass 174	77.6 (96.6)1
177	5.0 - 9.0% of mass 176	5.4 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050D29A	D1608	06/29/11	0940
02	WG93448-LCS	WG93448-1	D1609	06/29/11	1019
03	WG93448-BLANK	WG93448-2	D1612A	06/29/11	1212
04	DPT19-20-06222011MS	WG93448-3	D1625	06/29/11	1915
05	DPT19-20-06222011MS	WG93448-4	D1626	06/29/11	1945
06					
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FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-D Calibration Date: 06/29/11 Time: 0940

Lab File ID: D1608 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 1035 1318

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.6430000	0.5618000	0.5618000	0.01	-12.63	20.00	AVRG
Chloromethane	0.5600000	0.5542000	0.5542000	0.1	-1.04	20.00	AVRG
Vinyl chloride	0.6390000	0.5990400	0.5990400	0.01	-6.25	20.00	AVRG
Bromomethane	43.123000	50.000000	0.2441100	0.01	-13.75	20.00	LINR
Chloroethane	0.3660000	0.3492500	0.3492500	0.01	-4.58	20.00	AVRG
Trichlorofluoromethane	0.7580000	0.6963100	0.6963100	0.01	-8.14	20.00	AVRG
1,1-Dichloroethene	0.4230000	0.4194200	0.4194200	0.1	-0.85	20.00	AVRG
Carbon Disulfide	1.4020000	1.4714000	1.4714000	0.01	4.95	20.00	AVRG
Freon-113	0.3340000	0.2939800	0.2939800	0.01	-11.98	20.00	AVRG
Methylene Chloride	0.5500000	0.5224300	0.5224300	0.01	-5.01	20.00	AVRG
Acetone	0.1080000	8.76e-002	8.76e-002	0.01	-18.89	20.00	AVRG
trans-1,2-Dichloroethene	0.5210000	0.5071300	0.5071300	0.01	-2.66	20.00	AVRG
Methyl tert-butyl ether	1.1800000	1.1318000	1.1318000	0.01	-4.08	20.00	AVRG
1,1-Dichloroethane	0.8300000	0.8210100	0.8210100	0.1	-1.08	20.00	AVRG
cis-1,2-Dichloroethene	0.5540000	0.5383800	0.5383800	0.01	-2.82	20.00	AVRG
Chloroform	0.8220000	0.8038300	0.8038300	0.01	-2.21	20.00	AVRG
Carbon Tetrachloride	0.3760000	0.3692400	0.3692400	0.01	-1.80	20.00	AVRG
1,1,1-Trichloroethane	0.7030000	0.6983100	0.6983100	0.01	-0.67	20.00	AVRG
2-Butanone	0.1430000	0.1292500	0.1292500	0.01	-9.62	20.00	AVRG
Benzene	1.3200000	1.3121000	1.3121000	0.01	-0.60	20.00	AVRG
Cyclohexane	0.7760000	0.7537500	0.7537500	0.01	-2.87	20.00	AVRG
1,2-Dichloroethane	0.3650000	0.3572500	0.3572500	0.01	-2.12	20.00	AVRG
Trichloroethene	0.3110000	0.2993600	0.2993600	0.01	-3.74	20.00	AVRG
1,2-Dichloropropane	0.2980000	0.2890600	0.2890600	0.01	-3.00	20.00	AVRG
Bromodichloromethane	0.3800000	0.3852500	0.3852500	0.01	1.38	20.00	AVRG
cis-1,3-dichloropropene	0.4720000	0.4826700	0.4826700	0.01	2.26	20.00	AVRG
Toluene	0.8850000	0.8742000	0.8742000	0.01	-1.22	20.00	AVRG
4-methyl-2-pentanone	0.1660000	0.1700900	0.1700900	0.01	2.46	20.00	AVRG
Tetrachloroethene	0.2970000	0.2763700	0.2763700	0.01	-6.95	20.00	AVRG

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-D Calibration Date: 06/29/11 Time: 0940

Lab File ID: D1608 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 1035 1318

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	46.140000	50.000000	0.3798800	0.01	-7.72	20.00	LINR	
1,1,2-Trichloroethane	0.2050000	0.2018100	0.2018100	0.01	-1.56	20.00	AVRG	
Dibromochloromethane	45.392000	50.000000	0.2813300	0.01	-9.22	20.00	LINR	
1,2-Dibromoethane	0.2410000	0.2404400	0.2404400	0.01	-0.23	20.00	AVRG	
2-Hexanone	0.1290000	0.1238200	0.1238200	0.01	-4.02	20.00	AVRG	
Chlorobenzene	0.9630000	0.9328400	0.9328400	0.3	-3.13	20.00	AVRG	
Ethylbenzene	0.5740000	0.5540800	0.5540800	0.01	-3.47	20.00	AVRG	
Xylenes (total)	0.0000000	0.7023500	0.7023500	0.01	0.00	20.00	AVRG	<-
Styrene	1.0940000	1.1434000	1.1434000	0.01	4.52	20.00	AVRG	
Bromoform	42.841000	50.000000	0.1582000	0.1	-14.32	20.00	LINR	
Isopropylbenzene	2.3480000	2.3840000	2.3840000	0.01	1.53	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.5270000	0.5048300	0.5048300	0.3	-4.21	20.00	AVRG	
1,3-Dichlorobenzene	1.3860000	1.3156000	1.3156000	0.01	-5.08	20.00	AVRG	
1,4-Dichlorobenzene	1.4400000	1.3496000	1.3496000	0.01	-6.28	20.00	AVRG	
1,2-Dichlorobenzene	1.3160000	1.2456000	1.2456000	0.01	-5.35	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	9.e-002	7.93e-002	7.93e-002	0.01	-11.89	20.00	AVRG	
1,2,4-Trichlorobenzene	0.9970000	0.8901800	0.8901800	0.01	-10.71	20.00	AVRG	
Methyl Acetate	0.2650000	0.2297600	0.2297600	0.01	-13.30	20.00	AVRG	
Methylcyclohexane	0.8980000	0.7902300	0.7902300	0.01	-12.00	20.00	AVRG	
Dibromofluoromethane	0.4430000	0.4229500	0.4229500	0.01	-4.53	20.00	AVRG	
1,2-Dichloroethane-D4	0.4750000	0.4557700	0.4557700	0.01	-4.05	20.00	AVRG	
Toluene-D8	1.0840000	1.0856000	1.0856000	0.01	0.15	20.00	AVRG	
P-Bromofluorobenzene	0.4810000	0.4563400	0.4563400	0.01	-5.13	20.00	AVRG	

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93448-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: D1612A Lab Sample ID: WG93448-2

Date Analyzed: 06/29/11 Time Analyzed: 1212

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93448-LCS	WG93448-1	D1609	06/29/11	1019
02	DPT19-20-06222011MS	WG93448-3	D1625	06/29/11	1915
03	DPT19-20-06222011MS	WG93448-4	D1626	06/29/11	1945
04					
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COMMENTS:

Report of Analytical Results

Client:
Lab ID: WG93448-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client:
Lab ID: WG93448-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		102.	%					
Toluene-d8		111.	%					
1,2-Dichloroethane-d4		106.	%					
Dibromofluoromethane		103.	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: FB677 BFB Injection Date: 06/23/11

Instrument ID: GCMS-F BFB Injection Time: 0839

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.0
75	30.0 - 60.0% of mass 95	43.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	107.1
175	5.0 - 9.0% of mass 174	9.1 (8.5)1
176	95.0 - 101.0% of mass 174	103.7 (96.9)1
177	5.0 - 9.0% of mass 176	6.9 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD001F23B	F4057	06/23/11	1714
02		VSTD005F23B	F4058	06/23/11	1749
03		VSTD020F23B	F4059	06/23/11	1825
04		VSTD050F23B	F4060	06/23/11	1901
05		VSTD100F23B	F4061	06/23/11	1936
06		VSTD200F23B	F4062	06/23/11	2011
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FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date(s): 06/23/11 06/23/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1714 2011

LAB FILE ID: RF1: F4057 RF5: F4058 RF20: F4059
RF50: F4060 RF100: F4061 RF200: F4062

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	COEFFICENTS A2	%RSD OR R^2	MAX %RSD OR R^2
m+p-Xylenes	0.537	0.513	0.561	0.551	0.580	0.560	AVRG		0.55045694		4.166	15.000
o-Xylene	0.527	0.540	0.545	0.539	0.554	0.530	AVRG		0.53922850		1.792	15.000
Dichlorodifluoromethane	0.566	0.519	0.521	0.554	0.553	0.534	AVRG		0.54103358		3.588	15.000
Chloromethane	0.910	0.714	0.677	0.705	0.687	0.739	AVRG		0.73885931		11.741	15.000
Vinyl chloride	0.624	0.594	0.586	0.608	0.616	0.594	AVRG		0.60370881		2.408	15.000
Bromomethane	0.331	0.259	0.303	0.321	0.331	0.342	AVRG		0.31457225		9.616	15.000
Chloroethane	4395	16190	46176	107080	143120	222450	2ORDR	3.014e-002	1.19081937	15.1937775	0.99721	0.99000
Trichlorofluoromethane	0.746	0.726	0.688	0.728	0.724	0.676	AVRG		0.71479098		3.730	15.000
1,1-Dichloroethene	0.394	0.352	0.380	0.389	0.399	0.387	AVRG		0.38373912		4.329	15.000
Carbon Disulfide	1.419	1.224	1.268	1.257	1.296	1.236	AVRG		1.28332669		5.540	15.000
Freon-113	0.305	0.324	0.331	0.353	0.347	0.358	AVRG		0.33625114		5.982	15.000
Methylene Chloride	0.642	0.504	0.472	0.492	0.470	0.463	AVRG		0.50706473		13.323	15.000
Acetone	0.174	0.141	0.136	0.139	0.141	0.126	AVRG		0.14290066		11.185	15.000
trans-1,2-Dichloroethene	0.450	0.429	0.436	0.476	0.468	0.441	AVRG		0.45006755		4.131	15.000
Methyl tert-butyl ether	1.068	1.023	1.052	1.123	1.225	1.101	AVRG		1.09860709		6.474	15.000
1,1-Dichloroethane	0.801	0.740	0.776	0.814	0.808	0.777	AVRG		0.78580293		3.516	15.000
cis-1,2-Dichloroethene	0.446	0.453	0.451	0.482	0.470	0.473	AVRG		0.46258551		3.110	15.000
Chloroform	0.766	0.711	0.773	0.786	0.785	0.763	AVRG		0.76386822		3.629	15.000
Carbon Tetrachloride	0.314	0.357	0.352	0.366	0.383	0.379	AVRG		0.35850956		6.907	15.000
1,1,1-Trichloroethane	0.585	0.610	0.634	0.652	0.644	0.622	AVRG		0.62466722		3.905	15.000
2-Butanone	0.193	0.190	0.203	0.201	0.223	0.207	AVRG		0.20279140		5.836	15.000
Benzene	0.945	1.037	1.041	1.078	1.103	1.019	AVRG		1.03720970		5.265	15.000
Cyclohexane	0.524	0.550	0.573	0.611	0.619	0.593	AVRG		0.57825432		6.362	15.000
1,2-Dichloroethane	0.423	0.423	0.423	0.402	0.412	0.407	AVRG		0.41527470		2.220	15.000
Trichloroethene	0.318	0.272	0.279	0.292	0.287	0.283	AVRG		0.28860705		5.522	15.000
1,2-Dichloropropane	0.285	0.265	0.295	0.290	0.290	0.282	AVRG		0.28443974		3.716	15.000
Bromodichloromethane	0.360	0.394	0.410	0.410	0.437	0.418	AVRG		0.40475837		6.453	15.000
cis-1,3-dichloropropene	0.433	0.419	0.446	0.468	0.484	0.470	AVRG		0.45325950		5.487	15.000
Toluene	0.639	0.641	0.639	0.641	0.653	0.624	AVRG		0.63947647		1.467	15.000
4-methyl-2-pentanone	0.268	0.284	0.294	0.286	0.310	0.274	AVRG		0.28601359		5.255	15.000
Tetrachloroethene	0.343	0.340	0.338	0.371	0.338	0.358	AVRG		0.34817798		3.883	15.000
trans-1,3-Dichloropropene	0.323	0.354	0.358	0.386	0.407	0.408	AVRG		0.37264348		9.046	15.000
1,1,2-Trichloroethane	0.217	0.200	0.213	0.219	0.223	0.208	AVRG		0.21339461		3.888	15.000
Dibromochloromethane	0.368	0.381	0.431	0.420	0.473	0.455	AVRG		0.42132715		9.705	15.000
1,2-Dibromoethane	0.286	0.278	0.294	0.293	0.312	0.309	AVRG		0.29547148		4.425	15.000
2-Hexanone	0.242	0.234	0.257	0.225	0.272	0.234	AVRG		0.24412891		7.070	15.000
Chlorobenzene	0.969	0.924	0.927	0.923	0.993	0.937	AVRG		0.94552953		3.064	15.000
Ethylbenzene	0.470	0.442	0.453	0.428	0.473	0.455	AVRG		0.45360276		3.764	15.000
Xylenes (total)							AVRG					0.000
Styrene	0.855	0.871	0.953	0.945	0.964	0.994	AVRG		0.93031365		5.901	15.000
Bromoform	0.271	0.263	0.292	0.288	0.333	0.330	AVRG		0.29608886		9.917	15.000
Isopropylbenzene	2.147	2.063	2.317	2.097	2.197	2.376	AVRG		2.19943851		5.637	15.000
1,1,2,2-Tetrachloroethane	0.714	0.669	0.712	0.657	0.801	0.766	AVRG		0.71984996		7.716	15.000
1,3-Dichlorobenzene	1.363	1.260	1.390	1.366	1.441	1.424	AVRG		1.37397486		4.666	15.000

FORM 6

VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date(s): 06/23/11 06/23/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1714 2011

LAB FILE ID: RF1: F4057 RF5: F4058 RF20: F4059
RF50: F4060 RF100: F4061 RF200: F4062

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dichlorobenzene	1.554	1.371	1.487	1.408	1.526	1.506	AVRG		1.47522815		4.818	15.000
1,2-Dichlorobenzene	1.388	1.253	1.280	1.272	1.375	1.388	AVRG		1.32589287		4.845	15.000
1,2-Dibromo-3-Chloropropa	0.090	0.089	0.110	0.097	0.116	0.116	AVRG		0.10316810		12.089	15.000
1,2,4-Trichlorobenzene	0.918	0.740	0.818	0.775	0.969	0.967	AVRG		0.86464842		11.556	15.000
Methyl Acetate	0.660	0.484	0.510	0.522	0.637	0.570	AVRG		0.56395269		12.702	15.000
Methylcyclohexane	0.506	0.473	0.529	0.557	0.533	0.558	AVRG		0.52596630		6.134	15.000
Dibromofluoromethane	7271	27994	99518	250930	481780	974800	LINR	-1.73e-002	1.92365819		0.99975	0.99000
1,2-Dichloroethane-D4	6727	25900	96924	218880	441060	856500	LINR	-3.13e-002	2.18041409		0.99893	0.99000
Toluene-D8	17930	66185	247270	598700	1196900	2459500	LINR	-3.26e-003	1.09998471		0.99998	0.99000
P-Bromofluorobenzene	7703	27755	93620	245640	474140	959140	LINR	-1.3e-002	2.81529354		0.99981	0.99000

Average %RSD test result.

Calculate Average %RSD: 6.834921837
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: FB678 BFB Injection Date: 06/24/11

Instrument ID: GCMS-F BFB Injection Time: 0905

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.0
75	30.0 - 60.0% of mass 95	41.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	97.9
175	5.0 - 9.0% of mass 174	7.3 (7.5)1
176	95.0 - 101.0% of mass 174	94.8 (96.8)1
177	5.0 - 9.0% of mass 176	6.7 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050F24A	F4064	06/24/11	0941
02	WG93261-LCS	WG93261-1	F4066B	06/24/11	1218
03		IND CHECK	F4066A	06/24/11	1218
04	WG93261-BLANK	WG93261-2	F4068B	06/24/11	1339
05	RINSATE-06222011	SE3610-15	F4071	06/24/11	1535
06	TB-02	SE3610-16	F4072	06/24/11	1611
07	DPT19-60-06222011	SE3610-1	F4073	06/24/11	1646
08	DPT19-40-06222011	SE3610-2	F4074	06/24/11	1722
09	DPT19-12-06222011	SE3610-4	F4075	06/24/11	1758
10	DPT-DUP03-06222011	SE3610-5	F4076	06/24/11	1833
11	DPT20-60-06222011	SE3610-6	F4077	06/24/11	1910
12	DPT20-20-06222011	SE3610-8	F4078	06/24/11	1946
13	DPT19-60-06222011MS	WG93261-3	F4079	06/24/11	2023
14	DPT19-60-06222011MS	WG93261-4	F4080	06/24/11	2057
15					
16					
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22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date: 06/24/11 Time: 0941

Lab File ID: F4064 Init. Calib. Date(s): 06/23/11 06/23/11

Init. Calib. Times: 1714 2011

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dichlorodifluoromethane	0.5410000	0.4970800	0.4970800	0.01	-8.12	20.00	AVRG	
Chloromethane	0.7390000	0.6455000	0.6455000	0.1	-12.65	20.00	AVRG	
Vinyl chloride	0.6040000	0.6002400	0.6002400	0.01	-0.62	20.00	AVRG	
Bromomethane	0.3140000	0.3417400	0.3417400	0.01	8.83	20.00	AVRG	
Chloroethane	63.124000	50.000000	0.2482900	0.01	26.25	20.00	2RDR	<-
Trichlorofluoromethane	0.7150000	0.7182000	0.7182000	0.01	0.45	20.00	AVRG	
1,1-Dichloroethene	0.3840000	0.4481900	0.4481900	0.1	16.72	20.00	AVRG	
Carbon Disulfide	1.2830000	1.7136000	1.7136000	0.01	33.56	20.00	AVRG	<-
Freon-113	0.3360000	0.3156800	0.3156800	0.01	-6.05	20.00	AVRG	
Methylene Chloride	0.5070000	0.5375500	0.5375500	0.01	6.02	20.00	AVRG	
Acetone	0.1430000	0.1539100	0.1539100	0.01	7.63	20.00	AVRG	
trans-1,2-Dichloroethene	0.4500000	0.5364300	0.5364300	0.01	19.21	20.00	AVRG	
Methyl tert-butyl ether	1.0990000	1.1658000	1.1658000	0.01	6.08	20.00	AVRG	
1,1-Dichloroethane	0.7860000	0.8676100	0.8676100	0.1	10.38	20.00	AVRG	
cis-1,2-Dichloroethene	0.4620000	0.5257600	0.5257600	0.01	13.80	20.00	AVRG	
Chloroform	0.7640000	0.8369000	0.8369000	0.01	9.54	20.00	AVRG	
Carbon Tetrachloride	0.3580000	0.4186800	0.4186800	0.01	16.95	20.00	AVRG	
1,1,1-Trichloroethane	0.6240000	0.6961600	0.6961600	0.01	11.56	20.00	AVRG	
2-Butanone	0.2030000	0.2055500	0.2055500	0.01	1.26	20.00	AVRG	
Benzene	1.0370000	1.1595000	1.1595000	0.01	11.81	20.00	AVRG	
Cyclohexane	0.5780000	0.6996800	0.6996800	0.01	21.05	20.00	AVRG	<-
1,2-Dichloroethane	0.4150000	0.4384000	0.4384000	0.01	5.64	20.00	AVRG	
Trichloroethene	0.2880000	0.3180300	0.3180300	0.01	10.43	20.00	AVRG	
1,2-Dichloropropane	0.2840000	0.3157900	0.3157900	0.01	11.19	20.00	AVRG	
Bromodichloromethane	0.4050000	0.4668300	0.4668300	0.01	15.27	20.00	AVRG	
cis-1,3-dichloropropene	0.4530000	0.5065200	0.5065200	0.01	11.81	20.00	AVRG	
Toluene	0.6400000	0.7379900	0.7379900	0.01	15.31	20.00	AVRG	
4-methyl-2-pentanone	0.2860000	0.2654500	0.2654500	0.01	-7.18	20.00	AVRG	
Tetrachloroethene	0.3480000	0.3517500	0.3517500	0.01	1.08	20.00	AVRG	

FORM 7B

VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date: 06/24/11 Time: 0941

Lab File ID: F4064 Init. Calib. Date(s): 06/23/11 06/23/11

Init. Calib. Times: 1714 2011

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.3730000	0.4322400	0.4322400	0.01	15.88	20.00	AVRG	
1,1,2-Trichloroethane	0.2130000	0.2328900	0.2328900	0.01	9.34	20.00	AVRG	
Dibromochloromethane	0.4210000	0.4677300	0.4677300	0.01	11.10	20.00	AVRG	
1,2-Dibromoethane	0.2950000	0.3248900	0.3248900	0.01	10.13	20.00	AVRG	
2-Hexanone	0.2440000	0.2231100	0.2231100	0.01	-8.56	20.00	AVRG	
Chlorobenzene	0.9460000	1.0404000	1.0404000	0.3	9.98	20.00	AVRG	
Ethylbenzene	0.4540000	0.4563800	0.4563800	0.01	0.52	20.00	AVRG	
Xylenes (total) C.5%5	0.0000000	0.5832200	0.5832200	0.01	~~0.00~~ 7.0	20.00	AVRG	<-
Styrene	0.9300000	0.9758500	0.9758500	0.01	4.93	20.00	AVRG	
Bromoform	0.2960000	0.3157900	0.3157900	0.1	6.68	20.00	AVRG	
Isopropylbenzene	2.2000000	2.3850000	2.3850000	0.01	8.41	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.7200000	0.7246700	0.7246700	0.3	0.65	20.00	AVRG	
1,3-Dichlorobenzene	1.3740000	1.4646000	1.4646000	0.01	6.59	20.00	AVRG	
1,4-Dichlorobenzene	1.4750000	1.5871000	1.5871000	0.01	7.60	20.00	AVRG	
1,2-Dichlorobenzene	1.3260000	1.3936000	1.3936000	0.01	5.10	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	0.1030000	8.69e-002	8.69e-002	0.01	-15.63	20.00	AVRG	
1,2,4-Trichlorobenzene	0.8640000	0.8843200	0.8843200	0.01	2.35	20.00	AVRG	
Methyl Acetate	0.5640000	0.5906600	0.5906600	0.01	4.73	20.00	AVRG	
Methylcyclohexane	0.5260000	0.4861100	0.4861100	0.01	-7.58	20.00	AVRG	
Dibromofluoromethane	55.541000	50.000000	0.5864400	0.01	11.08	20.00	LINR	
1,2-Dichloroethane-D4	53.855000	50.000000	0.5083400	0.01	7.71	20.00	LINR	
Toluene-D8	55.032000	50.000000	1.0036000	0.01	10.06	20.00	LINR	
P-Bromofluorobenzene	53.490000	50.000000	0.3846200	0.01	6.98	20.00	LINR	

MD 7/26/11

FORM VII PEST

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93261-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: F4068B Lab Sample ID: WG93261-2

Date Analyzed: 06/24/11 Time Analyzed: 1339

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93261-LCS	WG93261-1	F4066B	06/24/11	1218
02	RINSATE-06222011	SE3610-15	F4071	06/24/11	1535
03	TB-02	SE3610-16	F4072	06/24/11	1611
04	DPT19-60-06222011	SE3610-1	F4073	06/24/11	1646
05	DPT19-40-06222011	SE3610-2	F4074	06/24/11	1722
06	DPT19-12-06222011	SE3610-4	F4075	06/24/11	1758
07	DPT-DUP03-06222011	SE3610-5	F4076	06/24/11	1833
08	DPT20-60-06222011	SE3610-6	F4077	06/24/11	1910
09	DPT20-20-06222011	SE3610-8	F4078	06/24/11	1946
10	DPT19-60-06222011MS	WG93261-3	F4079	06/24/11	2023
11	DPT19-60-06222011MS	WG93261-4	F4080	06/24/11	2057
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COMMENTS:

FORM IVVOA

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93261-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-jun-2011 12:51

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client:
Lab ID: WG93261-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 24-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93261

Analysis Date: 24-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-jun-2011 12:51

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		102.	%					
Dibromofluoromethane		102.	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: FB679 BFB Injection Date: 06/25/11

Instrument ID: GCMS-F BFB Injection Time: 0958

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	46.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	97.1
175	5.0 - 9.0% of mass 174	7.2 (7.4)1
176	95.0 - 101.0% of mass 174	93.8 (96.6)1
177	5.0 - 9.0% of mass 176	5.7 (6.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050F25A	F4085	06/25/11	1023
02	WG93284-LCS	WG93284-1	F4086	06/25/11	1107
03	WG93284-BLANK	WG93284-2	F4088	06/25/11	1227
04	DPT20-40-06222011	SE3610-7	F4089	06/25/11	1302
05	DUP04-40-06222011	SE3610-10	F4090	06/25/11	1339
06	DPT21-40-06222011	SE3610-12	F4091	06/25/11	1415
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FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date: 06/25/11 Time: 1023

Lab File ID: F4085 Init. Calib. Date(s): 06/23/11 06/23/11

Init. Calib. Times: 1714 2011

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dichlorodifluoromethane	0.5410000	0.4760300	0.4760300	0.01	-12.01	20.00	AVRG	
Chloromethane	0.7390000	0.6575700	0.6575700	0.1	-11.02	20.00	AVRG	
Vinyl chloride	0.6040000	0.5525800	0.5525800	0.01	-8.51	20.00	AVRG	
Bromomethane	0.3140000	0.3166000	0.3166000	0.01	0.83	20.00	AVRG	
Chloroethane	52.488000	50.000000	0.2228100	0.01	4.98	20.00	2RDR	
Trichlorofluoromethane	0.7150000	0.7184500	0.7184500	0.01	0.48	20.00	AVRG	
1,1-Dichloroethene	0.3840000	0.4156100	0.4156100	0.1	8.23	20.00	AVRG	
Carbon Disulfide	1.2830000	1.6869000	1.6869000	0.01	31.48	20.00	AVRG	<-
Freon-113	0.3360000	0.2866200	0.2866200	0.01	-14.70	20.00	AVRG	
Methylene Chloride	0.5070000	0.5424700	0.5424700	0.01	7.00	20.00	AVRG	
Acetone	0.1430000	0.1572300	0.1572300	0.01	9.95	20.00	AVRG	
trans-1,2-Dichloroethene	0.4500000	0.5090800	0.5090800	0.01	13.13	20.00	AVRG	
Methyl tert-butyl ether	1.0990000	1.2036000	1.2036000	0.01	9.52	20.00	AVRG	
1,1-Dichloroethane	0.7860000	0.8753200	0.8753200	0.1	11.36	20.00	AVRG	
cis-1,2-Dichloroethene	0.4620000	0.5138700	0.5138700	0.01	11.23	20.00	AVRG	
Chloroform	0.7640000	0.8500900	0.8500900	0.01	11.27	20.00	AVRG	
Carbon Tetrachloride	0.3580000	0.4226800	0.4226800	0.01	18.07	20.00	AVRG	
1,1,1-Trichloroethane	0.6240000	0.7165100	0.7165100	0.01	14.82	20.00	AVRG	
2-Butanone	0.2030000	0.2043600	0.2043600	0.01	0.67	20.00	AVRG	
Benzene	1.0370000	1.1335000	1.1335000	0.01	9.30	20.00	AVRG	
Cyclohexane	0.5780000	0.6708500	0.6708500	0.01	16.06	20.00	AVRG	
1,2-Dichloroethane	0.4150000	0.4573900	0.4573900	0.01	10.21	20.00	AVRG	
Trichloroethene	0.2880000	0.3250300	0.3250300	0.01	12.86	20.00	AVRG	
1,2-Dichloropropane	0.2840000	0.3166700	0.3166700	0.01	11.50	20.00	AVRG	
Bromodichloromethane	0.4050000	0.4335100	0.4335100	0.01	7.04	20.00	AVRG	
cis-1,3-dichloropropene	0.4530000	0.5300300	0.5300300	0.01	17.00	20.00	AVRG	
Toluene	0.6400000	0.6927500	0.6927500	0.01	8.24	20.00	AVRG	
4-methyl-2-pentanone	0.2860000	0.2770700	0.2770700	0.01	-3.12	20.00	AVRG	
Tetrachloroethene	0.3480000	0.3434500	0.3434500	0.01	-1.31	20.00	AVRG	

FORM 7B

VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date: 06/25/11 Time: 1023

Lab File ID: F4085 Init. Calib. Date(s): 06/23/11 06/23/11

Init. Calib. Times: 1714 2011

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.3730000	0.4133700	0.4133700	0.01	10.82	20.00	AVRG	
1,1,2-Trichloroethane	0.2130000	0.2344000	0.2344000	0.01	10.05	20.00	AVRG	
Dibromochloromethane	0.4210000	0.4855200	0.4855200	0.01	15.32	20.00	AVRG	
1,2-Dibromoethane	0.2950000	0.3364100	0.3364100	0.01	14.04	20.00	AVRG	
2-Hexanone	0.2440000	0.2512700	0.2512700	0.01	2.98	20.00	AVRG	
Chlorobenzene	0.9460000	1.0083000	1.0083000	0.3	6.58	20.00	AVRG	
Ethylbenzene	0.4540000	0.4745600	0.4745600	0.01	4.53	20.00	AVRG	
Xylenes (total) 0.545	~~0.0000000~~	0.5992000	0.5992000	0.01	~~0.00~~ 99%	20.00	AVRG	<-
Styrene	0.9300000	1.0752000	1.0752000	0.01	15.61	20.00	AVRG	
Bromoform	0.2960000	0.3408400	0.3408400	0.1	15.15	20.00	AVRG	
Isopropylbenzene	2.2000000	2.2837000	2.2837000	0.01	3.80	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.7200000	0.7476100	0.7476100	0.3	3.83	20.00	AVRG	
1,3-Dichlorobenzene	1.3740000	1.4239000	1.4239000	0.01	3.63	20.00	AVRG	
1,4-Dichlorobenzene	1.4750000	1.5217000	1.5217000	0.01	3.17	20.00	AVRG	
1,2-Dichlorobenzene	1.3260000	1.3306000	1.3306000	0.01	0.35	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	0.1030000	0.1030900	0.1030900	0.01	0.09	20.00	AVRG	
1,2,4-Trichlorobenzene	0.8640000	0.7837400	0.7837400	0.01	-9.29	20.00	AVRG	
Methyl Acetate	0.5640000	0.6601900	0.6601900	0.01	17.06	20.00	AVRG	
Methylcyclohexane	0.5260000	0.5211800	0.5211800	0.01	-0.92	20.00	AVRG	
Dibromofluoromethane	54.671000	50.000000	0.5773900	0.01	9.34	20.00	LINR	
1,2-Dichloroethane-D4	56.004000	50.000000	0.5280500	0.01	12.01	20.00	LINR	
Toluene-D8	53.653000	50.000000	0.9784900	0.01	7.31	20.00	LINR	
P-Bromofluorobenzene	53.089000	50.000000	0.3817700	0.01	6.18	20.00	LINR	

7/26/11

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93284-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: F4088 Lab Sample ID: WG93284-2

Date Analyzed: 06/25/11 Time Analyzed: 1227

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93284-LCS	WG93284-1	F4086	06/25/11	1107
02	DPT20-40-06222011	SE3610-7	F4089	06/25/11	1302
03	DUP04-40-06222011	SE3610-10	F4090	06/25/11	1339
04	DPT21-40-06222011	SE3610-12	F4091	06/25/11	1415
05					
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COMMENTS:

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93284-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-jun-2011 12:52

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client:
Lab ID: WG93284-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 25-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93284

Analysis Date: 25-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-jun-2011 12:52

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		113.	%					
Toluene-d8		116.	%					
1,2-Dichloroethane-d4		118.	%					
Dibromofluoromethane		116.	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: FB680 BFB Injection Date: 06/27/11

Instrument ID: GCMS-F BFB Injection Time: 0719

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.8
75	30.0 - 60.0% of mass 95	42.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	95.8
175	5.0 - 9.0% of mass 174	6.6 (6.9)1
176	95.0 - 101.0% of mass 174	91.5 (95.5)1
177	5.0 - 9.0% of mass 176	6.4 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050F27A	F4093	06/27/11	0745
02	WG93372-LCS	WG93372-1	F4094A	06/27/11	0831
03	WG93372-BLANK	WG93372-2	F4097A	06/27/11	1041
04	DPT19-20-06222011	SE3610-3	F4098	06/27/11	1126
05	DPT20-12-06222011	SE3610-9	F4099	06/27/11	1200
06	DPT21-60-06222011	SE3610-11	F4100	06/27/11	1234
07	DPT21-20-06222011	SE3610-13	F4101	06/27/11	1308
08	DPT21-12-06222011	SE3610-14	F4102	06/27/11	1342
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FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

resubmitted 7/28/11 MS

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date: 06/27/11 Time: 0745

Lab File ID: F4093 Init. Calib. Date(s): 06/23/11 06/23/11

Init. Calib. Times: 1714 2011

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dichlorodifluoromethane	0.5410000	0.4474000	0.4474000	0.01	-17.30	20.00	AVRG	
Chloromethane	0.7390000	0.6535200	0.6535200	0.1	-11.57	20.00	AVRG	
Vinyl chloride	0.6040000	0.5714400	0.5714400	0.01	-5.39	20.00	AVRG	
Bromomethane	0.3140000	0.3495100	0.3495100	0.01	11.31	20.00	AVRG	
Chloroethane	68.362000	50.000000	0.2600400	0.01	36.72	20.00	2RDR	<-
Trichlorofluoromethane	0.7150000	0.7404400	0.7404400	0.01	3.56	20.00	AVRG	
1,1-Dichloroethene	0.3840000	0.4458100	0.4458100	0.1	16.10	20.00	AVRG	
Carbon Disulfide	1.2830000	1.6777000	1.6777000	0.01	30.76	20.00	AVRG	<-
Freon-113	0.3360000	0.1495000	0.1495000	0.01	-55.51	20.00	AVRG	<-
Methylene Chloride	0.5070000	0.5389000	0.5389000	0.01	6.29	20.00	AVRG	
Acetone	0.1430000	0.1406500	0.1406500	0.01	-1.64	20.00	AVRG	
trans-1,2-Dichloroethene	0.4500000	0.5329500	0.5329500	0.01	18.43	20.00	AVRG	
Methyl tert-butyl ether	1.0990000	1.1598000	1.1598000	0.01	5.53	20.00	AVRG	
1,1-Dichloroethane	0.7860000	0.9381800	0.9381800	0.1	19.36	20.00	AVRG	
cis-1,2-Dichloroethene	0.4620000	0.5398500	0.5398500	0.01	16.85	20.00	AVRG	
Chloroform	0.7640000	0.9051900	0.9051900	0.01	18.48	20.00	AVRG	
Carbon Tetrachloride	0.3580000	0.3994900	0.3994900	0.01	11.59	20.00	AVRG	
1,1,1-Trichloroethane	0.6240000	0.7531800	0.7531800	0.01	20.70	20.00	AVRG	<-
2-Butanone	0.2030000	0.2072200	0.2072200	0.01	2.08	20.00	AVRG	
Benzene	1.0370000	1.2020000	1.2020000	0.01	15.91	20.00	AVRG	
Cyclohexane	0.5780000	0.7301600	0.7301600	0.01	26.32	20.00	AVRG	<-
1,2-Dichloroethane	0.4150000	0.4550000	0.4550000	0.01	9.64	20.00	AVRG	
Trichloroethene	0.2880000	0.3095900	0.3095900	0.01	7.50	20.00	AVRG	
1,2-Dichloropropane	0.2840000	0.3166600	0.3166600	0.01	11.50	20.00	AVRG	
Bromodichloromethane	0.4050000	0.4536800	0.4536800	0.01	12.02	20.00	AVRG	
cis-1,3-dichloropropene	0.4530000	0.4993300	0.4993300	0.01	10.23	20.00	AVRG	
Toluene	0.6400000	0.6852400	0.6852400	0.01	7.07	20.00	AVRG	
4-methyl-2-pentanone	0.2860000	0.2781800	0.2781800	0.01	-2.73	20.00	AVRG	
Tetrachloroethene	0.3480000	0.3536500	0.3536500	0.01	1.62	20.00	AVRG	

resubmitted
7/28/11
MA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Instrument ID: GCMS-F Calibration Date: 06/27/11 Time: 0745

Lab File ID: F4093 Init. Calib. Date(s): 06/23/11 06/23/11

Init. Calib. Times: 1714 2011

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.3730000	0.4105200	0.4105200	0.01	10.06	20.00	AVRG	
1,1,2-Trichloroethane	0.2130000	0.2320400	0.2320400	0.01	8.94	20.00	AVRG	
Dibromochloromethane	0.4210000	0.4378400	0.4378400	0.01	4.00	20.00	AVRG	
1,2-Dibromoethane	0.2950000	0.3156200	0.3156200	0.01	6.99	20.00	AVRG	
2-Hexanone	0.2440000	0.2173700	0.2173700	0.01	-10.91	20.00	AVRG	
Chlorobenzene	0.9460000	1.0102000	1.0102000	0.3	6.79	20.00	AVRG	
Ethylbenzene	0.4540000	0.4705300	0.4705300	0.01	3.64	20.00	AVRG	
Xylenes (total) $\bar{x}$ = 0.545	~~0.0000000~~	0.5860000	0.5860000	0.01	~~0.00~~ -7.5	20.00	AVRG	<-
Styrene	0.9300000	1.0430000	1.0430000	0.01	12.15	20.00	AVRG	
Bromoform	0.2960000	0.2955300	0.2955300	0.1	-0.16	20.00	AVRG	
Isopropylbenzene	2.2000000	2.3872000	2.3872000	0.01	8.51	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.7200000	0.7591000	0.7591000	0.3	5.43	20.00	AVRG	
1,3-Dichlorobenzene	1.3740000	1.5005000	1.5005000	0.01	9.21	20.00	AVRG	
1,4-Dichlorobenzene	1.4750000	1.5495000	1.5495000	0.01	5.05	20.00	AVRG	
1,2-Dichlorobenzene	1.3260000	1.4076000	1.4076000	0.01	6.15	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	0.1030000	0.1158200	0.1158200	0.01	12.45	20.00	AVRG	
1,2,4-Trichlorobenzene	0.8640000	0.8431400	0.8431400	0.01	-2.41	20.00	AVRG	
Methyl Acetate	0.5640000	0.6368300	0.6368300	0.01	12.91	20.00	AVRG	
Methylcyclohexane	0.5260000	0.4048700	0.4048700	0.01	-23.03	20.00	AVRG	<-
Dibromofluoromethane	56.324000	50.000000	0.5945800	0.01	12.65	20.00	LINR	
1,2-Dichloroethane-D4	57.268000	50.000000	0.5396500	0.01	14.54	20.00	LINR	
Toluene-D8	52.011000	50.000000	0.9486300	0.01	4.02	20.00	LINR	
P-Bromofluorobenzene	50.212000	50.000000	0.3613300	0.01	0.42	20.00	LINR	

MA
7/28/11

FORM VII PEST

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93372-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX03

Lab File ID: F4097A Lab Sample ID: WG93372-2

Date Analyzed: 06/27/11 Time Analyzed: 1041

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93372-LCS	WG93372-1	F4094A	06/27/11	0831
02	DPT19-20-06222011	SE3610-3	F4098	06/27/11	1126
03	DPT20-12-06222011	SE3610-9	F4099	06/27/11	1200
04	DPT21-60-06222011	SE3610-11	F4100	06/27/11	1234
05	DPT21-20-06222011	SE3610-13	F4101	06/27/11	1308
06	DPT21-12-06222011	SE3610-14	F4102	06/27/11	1342
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COMMENTS:

Katahdin
ANALYTICAL SERVICES

nelac
Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93372-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-jun-2011 12:52

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client:
Lab ID: WG93372-2
Client ID: Method Blank Sample
Project:
SDG: JAX03

Sample Date:
Received Date:
Extract Date: 27-JUN-11
Extracted By: DJP
Extraction Method: SW846 5030
Lab Prep Batch: WG93372

Analysis Date: 27-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 29-jun-2011 12:52

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	I	0.70	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		106.	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		109.	%					
Dibromofluoromethane		106.	%					

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NAS JACKSONVILLE
WATER DATA
JAX03

FRACTION	CHEMICAL	AX45-DPT20-40-0622201	UNITS	45-DPT-DUP04-40-0622	RPD	D
OV	CARBON DISULFIDE	0.42 J	UG/L	ND	200.00	0.42

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. PATE** **DATE:** **AUGUST 15, 2011**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / SVOC / PAH / PCB / TPH**
NAS JACKSONVILLE, CTO 0112
SAMPLE DELIVERY GROUP (SDG) – JAX004

SAMPLES:

6 / Aqueous / VOC

JAX45-DPT22-12-06232011	JAX45-DPT22-20-06232011	JAX45-DPT22-40-06232011
JAX45-DPT22-60-06232011	JAX45-SBRINSATE-06242011	TB-04

12 / Soil / VOC

JAX45-DUP01-06242011	JAX45-SB05-SB-06242011	JAX45-SB06-SB-06242011
JAX45-SB07-SB-06242011	JAX45-SB08-SB-06242011	JAX45-SB09-SB-06242011
JAX45-SB10-SB-06242011	JAX45-SB11-SB-06242011	JAX45-SB12-SB-06242011
JAX45-SB13-SB-06242011	JAX45-SB14-SB-06242011	TB-03

11 / Soil / SVOC / PAH / PCB / PET

JAX45-DUP01-06242011	JAX45-SB05-SB-06242011	JAX45-SB06-SB-06242011
JAX45-SB07-SB-06242011	JAX45-SB08-SB-06242011	JAX45-SB09-SB-06242011
JAX45-SB10-SB-06242011	JAX45-SB11-SB-06242011	JAX45-SB12-SB-06242011
JAX45-SB13-SB-06242011	JAX45-SB14-SB-06242011	

Overview

The sample set for NAS Jacksonville, CTO 0112, SDG JAX004 consisted of six (6) aqueous samples including one (1) aqueous QC trip blank sample and one (1) QC rinsate blank sample, twelve (12) soil samples including one (1) QC soil trip blank sample. The samples were analyzed for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), polynuclear aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), and total petroleum hydrocarbons (TPH) as indicated above. One (1) field duplicate sample pair was included in the Sample Delivery Group (SDG); JAX45-DUP01-06242011 / JAX45-SB12-SB-06242011.

The samples were collected by Tetra Tech NUS on June 23 and 24, 2011 and analyzed by Katahdin Analytical Services. The analysis was conducted in accordance with SW-846 Method 8260B, 8270C Full Scan, 8270C Selective Ion Monitoring (SIM), 8082, and FL-PRO analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
• Initial and Continuing Calibration
• Laboratory Blank Analyses
* • Field Duplicate Imprecision

* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

VOC

The following VOC contaminants were detected in the trip blanks and the method blanks at the following maximum concentrations.

Analyte	Maximum Concentration	Action Level
2-Butanone [1]	2.0 µg/L	20.0 µg/L
Acetone [1]	5.8 µg/L	58.0 µg/L
Carbon disulfide [2]	1.2 µg/kg	6.0 µg/kg
Acetone [2]	7.8 µg/kg	78.0 µg/kg

[1] Trip blank TB-04 affecting all aqueous samples.
[2] Trip blank TB-03 affecting all soil samples.

An action level of ten times the maximum level for the common laboratory contaminants acetone and 2-butanone, and five times the maximum level for carbon disulfide has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The maximum acetone concentration was chosen from the trip blank and method blanks for qualifying sample data. Positive sample results less than the action level were qualified non-detected, (U). The sample rinsate blank, JAX45-SBRINSATE-06242011, was not qualified for trip blank or method blank contamination.

The initial calibration relative standard deviation (RSD) was greater than the 15% quality control limit for acetone on instrument GCMS-D on 06/28/11.

Affecting samples: All SDG aqueous samples.

Action: The positive and non-detected results for acetone for the aforementioned samples were qualified estimated, (J) and (UJ), respectively, except for sample JAX45-DPT22-20-06232011 which was qualified non-detected for trip blank contamination.

The continuing calibration verification (CCV) percent difference (%D) was greater than the 20% quality control limit for acetone for instrument GCMS-C on 06/29/11 @ 09:37.

Affecting samples:

JAX45-DUP01-06242011	JAX45-SB05-SB-06242011	JAX45-SB06-SB-06242011
JAX45-SB07-SB-06242011	JAX45-SB09-SB-06242011	JAX45-SB10-SB-06242011
JAX45-SB11-SB-06242011	JAX45-SB12-SB-06242011	JAX45-SB13-SB-06242011
JAX45-SB14-SB-06242011	TB-03	

Action: The positive acetone result for sample TB-03 was qualified estimated, (J). No action was taken for the remainder of the sample acetone results as they were qualified non-detected for trip blank contamination.

SVOC

The continuing CCV %D was greater than the 20% quality control limit for 2,2'-oxybis(1-chloropropane) for instrument GCMS-U on 06/29/11 @ 14:40.

Affecting samples:

JAX45-SB05-SB-06242011	JAX45-SB06-SB-06242011	JAX45-SB07-SB-06242011
JAX45-SB08-SB-06242011	JAX45-SB09-SB-06242011	JAX45-SB10-SB-06242011
JAX45-SB11-SB-06242011	JAX45-SB14-SB-06242011	

Action: The non-detected 2,2'-oxybis(1-chloropropane) results for the aforementioned samples were qualified estimated, (UJ).

The continuing CCV %Ds were greater than the 20% quality control limit for 2,2'-oxybis(1-chloropropane), n-nitroso-di-n-propylamine, and benzaldehyde for instrument GCMS-U on 06/30/11 @ 07:26.

Affecting samples:

JAX45-SB12-SB-06242011	JAX45-SB13-SB-06242011	JAX45-DUP01-06242011

Action: The non-detected 2,2'-oxybis(1-chloropropane), n-nitroso-di-n-propylamine, and benzaldehyde results for the aforementioned samples were qualified estimated, (UJ).

PAH

The continuing CCV %D was greater than the 20% quality control limit for indeno(1,2,3-cd)pyrene for instrument GCMS-G on 06/29/11 @ 14:13.

Affecting samples:

JAX45-SB05-SB-06242011	JAX45-SB07-SB-06242011	JAX45-SB09-SB-06242011
JAX45-SB10-SB-06242011	JAX45-SB11-SB-06242011	JAX45-SB12-SB-06242011
JAX45-DUP01-06242011	JAX45-SB13-SB-06242011	JAX45-SB14-SB-06242011

Action: The positive indeno(1,2,3-cd)pyrene results for the aforementioned samples were qualified estimated, (J).

The continuing CCV %Ds were greater than the 20% quality control limit for phenanthrene, pyrene, benzo(a)anthracene, and indeno(1,2,3-cd)pyrene for instrument GCMS-G on 06/30/11 @ 08:45.

Affecting samples:

JAX45-SB06-SB-06242011DL	JAX45-SB07-SB-06242011DL	JAX45-SB11-SB-06242011DL
JAX45-DUP01-06242011DL	JAX45-SB08-SB-06242011	JAX45-SB09-SB-06242011RA

Action: The positive PAH results reported from the aforementioned samples were qualified estimated as indicated below. PAH results not qualified were reported from the undiluted sample analysis, and the initial sample analysis in the case of sample JAX45-SB09-SB-06242011RA.

Sample	Analytes reported and qualified
JAX45-SB06-SB-06242011DL	benzo(a)anthracene, phenanthrene, and pyrene
JAX45-SB11-SB-06242011DL	phenanthrene and pyrene
JAX45-SB08-SB-06242011	phenanthrene, pyrene, benzo(a)anthracene, and indeno(1,2,3-cd)pyrene

The sample JAX45-SB09-SB-06242011 was re-analyzed due to a internal standard recovery quality control limit non-compliance. The re-analysis had a similar internal standard recovery quality control limit non-compliance. Only the original sample analysis for JAX45-SB09-SB-06242011 was reported. The sample PAH analytes associated with the internal standard were not qualified for this quality control limit non-compliance as this was a limited data validation review.

The matrix spike (MS) and MS duplicate (MSD) %Rs were quality control limit non-compliant for a number of PAH analytes for spiked sample JAX45-SB13-SB-06242011. Some of the PAH analyte %Rs were less than 10% for the MS for the sample. As this was a limited data validation review the MS/MSD results were casually reviewed for very significant issues only. However, as the MS %Rs for the analytes phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd), and benzo(g,h,i)perylene were less than 10%, the sample JAX45-SB13-SB-06242011 PAH positive results for the aforementioned analytes were qualified estimated, (J).

PCB

The Aroclor-1016 and Aroclor-1260 CCV average %Ds were greater than the 20% quality control limit for instrument GC07 for dates/times and analytical columns as listed below.

Date/Time	Analyte	RTX-CLPESTICIDES	RTX-CLPESTICIDES2
06/28/11@17:56	Aroclor-1260	21.90% average	------
06/29/11@00:23	Aroclor-1016	33.99% average	27.82% average
	Aroclor-1260	34.40% average	45.54% average

Affecting samples:

JAX45-SB05-SB-06242011 JAX45-SB06-SB-06242011 JAX45-SB07-SB-06242011

Action: The affected samples had non-detected results for the aforementioned analytes which were qualified estimated, (UJ).

The Aroclor-1016 average %D was greater than the 20% quality control limit for instrument GC07 for Aroclor-1016 on 06/30/11 @ 11:53 for the RTX-CLPESTICIDES analytical column. No action was taken as the affected samples had non-detected results for Aroclor-1016 and the alternate RTX-CLPESTICIDES2 column had bracketing %Ds within the quality control limits.

PET

No issues were identified.

Additional Comments

Positive results reported below the Limit of Quantitation (LOQ) but above the method detection limit (MDL) were qualified as estimated, (J).

Sample JAX45-DPT22-12-06232011 was analyzed both undiluted and diluted (10X dilution) for VOC analytes that exceeded the highest calibration level for the undiluted VOC sample analysis. Only the analyte results that exceeded the highest calibration level for the undiluted VOC analysis were reported from the 10X dilution VOC analysis. All other VOC analytes were reported from the undiluted sample analysis.

Sample JAX45-DPT22-20-06232011 was analyzed both undiluted and diluted (4X dilution) for VOC analytes in order to quantify cis-1,2-dichloroethene which exceed the highest calibration level in the undiluted sample. The cis-1,2-dichloroethene result was reported from the 4X dilution. All other VOC analytes were reported from the undiluted sample analysis.

Samples were analyzed for PAHs both undiluted and diluted as listed below due to analytes that exceeded the highest calibration level for the undiluted PAH sample analysis. Only the PAH analytes results that exceeded the highest calibration level for the undiluted PAH analysis were reported from the dilution analyses.

Sample	Dilution
JAX45-SB06-SB-06242011	1X, 3X
JAX45-SB07-SB-06242011	1X, 2X
JAX45-SB11-SB-06242011	1X, 4X
JAX45-DUP01-06242011	1X, 4X

Executive Summary

Laboratory Performance: VOC sample results were qualified for trip blank contamination. A VOC initial calibration acetone RSD was greater than the quality control limit resulting in the qualification of all acetone aqueous sample results. VOC, SVOC, PAH, and PCB CCV %Ds greater than the quality control limit resulted in qualification of VOC, SVOC, PAH, and PCB analytes.

Other Factors Affecting Data Quality: Positive results reported below the LOQ but above the MDL were qualified as estimated, (J).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), USEPA SW-846 Methods 8260B, 8270C Full Scan, 8270C SIM, 8082, and FL-PRO analytical and reporting protocols, and Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011	JAX45-SB05-SB-06242011	JAX45-SB06-SB-06242011	JAX45-SB07-SB-06242011
SDG: JAX04	LAB_ID	SE3674-13	SE3674-5	SE3674-6	SE3674-7
FRACTION: OV	SAMP_DATE	6/24/2011	6/23/2011	6/24/2011	6/24/2011
MEDIA: SOIL	QC_TYPE	NM	NM	NM	NM
	UNITS	UG/KG	UG/KG	UG/KG	UG/KG
	PCT_SOLIDS	92.8	72.3	85.7	82.2
	DUP_OF	JAX45-SB12-SB-06242011			

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.46	U		0.5	U		0.42	U		0.46	U	
1,1,2,2-TETRACHLOROETHANE	0.92	U		1	U		0.84	U		0.92	U	
1,1,2-TRICHLOROETHANE	1.1	U		1.2	U		0.97	U		1.1	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.99	U		1.1	U		0.9	U		0.99	U	
1,1-DICHLOROETHANE	1.9	U		2	U		1.7	U		1.9	U	
1,1-DICHLOROETHENE	1	U		1.1	U		0.93	U		1	U	
1,2,4-TRICHLOROBENZENE	0.87	U		0.95	U		0.79	U		0.87	U	
1,2-DIBROMO-3-CHLOROPROPANE	1.6	U		1.8	U		1.5	U		1.6	U	
1,2-DIBROMOETHANE	1.3	U		1.4	U		1.2	U		1.3	U	
1,2-DICHLOROBENZENE	0.86	U		0.94	U		0.78	U		0.86	U	
1,2-DICHLOROETHANE	1.1	U		1.2	U		1	U		1.1	U	
1,2-DICHLOROPROPANE	1.5	U		1.7	U		1.4	U		1.5	U	
1,3-DICHLOROBENZENE	0.68	U		0.74	U		0.62	U		0.68	U	
1,4-DICHLOROBENZENE	0.48	U		0.53	U		0.44	U		0.48	U	
2-BUTANONE	6.5	U		7.1	U		5.9	U		6.5	U	
2-HEXANONE	5.3	U		5.8	U		4.8	U		5.3	U	
4-METHYL-2-PENTANONE	6.5	U		7.1	U		5.9	U		6.5	U	
ACETONE	9.7	U	B	33	U	B	14	U	B	10	U	B
BENZENE	1	U		1.1	U		0.92	U		1	U	
BROMODICHLOROMETHANE	0.66	U		0.72	U		0.6	U		0.66	U	
BROMOFORM	0.77	U		0.84	U		0.7	U		0.77	U	
BROMOMETHANE	1.2	U		1.3	U		1.1	U		1.2	U	
CARBON DISULFIDE	2.8	U	B	3	U	B	2.5	U	B	2.8	U	B
CARBON TETRACHLORIDE	1.4	U		1.6	U		1.3	U		1.4	U	
CHLOROBENZENE	0.56	U		0.61	U		0.51	U		0.56	U	
CHLORODIBROMOMETHANE	1.1	U		1.2	U		1	U		1.1	U	
CHLOROETHANE	1.4	U		1.6	U		1.3	U		1.4	U	
CHLOROFORM	0.38	U		0.42	U		0.35	U		0.38	U	
CHLOROMETHANE	1.5	U		1.7	U		1.4	U		1.5	U	
CIS-1,2-DICHLOROETHENE	1	U		1.1	U		0.91	U		1	U	
CIS-1,3-DICHLOROPROPENE	0.79	U		0.86	U		0.72	U		0.79	U	
CYCLOHEXANE	1.5	U		1.7	U		1.4	U		1.5	U	
DICHLORODIFLUOROMETHANE	1	U		1.1	U		0.92	U		1	U	
ETHYLBENZENE	0.72	U		0.78	U		0.65	U		0.72	U	
ISOPROPYLBENZENE	1	U		1.1	U		0.92	U		1	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011			JAX45-SB07-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-13			SE3674-5			SE3674-6			SE3674-7		
FRACTION: OV	SAMP_DATE	6/24/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	92.8			72.3			85.7			82.2		
	DUP_OF	JAX45-SB12-SB-06242011											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		3	U		3.2	U		2.7	U		3	U	
METHYL CYCLOHEXANE		1	U		1.2	U		0.96	U		1	U	
METHYL TERT-BUTYL ETHER		1.2	U		1.3	U		1.1	U		1.2	U	
METHYLENE CHLORIDE		8.7	U		9.5	U		7.9	U		8.7	U	
STYRENE		0.56	U		0.61	U		0.51	U		0.56	U	
TETRACHLOROETHENE		2.1	J	P	1.4	U		1.2	U		1.3	U	
TOLUENE		1.5	U		1.7	U		1.4	U		1.5	U	
TOTAL XYLENES		1.4	U		1.6	U		1.3	U		1.4	U	
TRANS-1,2-DICHLOROETHENE		0.78	U		0.85	U		0.71	U		0.78	U	
TRANS-1,3-DICHLOROPROPENE		0.95	U		1	U		0.86	U		0.95	U	
TRICHLOROETHENE		0.65	U		0.71	U		0.59	U		0.65	U	
TRICHLOROFLUOROMETHANE		1	U		1.1	U		0.91	U		1	U	
VINYL CHLORIDE		0.96	U		1	U		0.87	U		0.96	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-8			SE3674-9			SE3674-10			SE3674-11		
FRACTION: OV	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.4	U		0.46	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.81	U		0.92	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		0.93	U		1.1	U		1.2	U		1.2	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.86	U		0.99	U		1.1	U		1.1	U	
1,1-DICHLOROETHANE		1.6	U		1.9	U		2	U		2	U	
1,1-DICHLOROETHENE		0.89	U		1	U		1.1	U		1.1	U	
1,2,4-TRICHLOROBENZENE		0.76	U		0.87	U		0.95	U		0.95	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.4	U		1.6	U		1.8	U		1.8	U	
1,2-DIBROMOETHANE		1.2	U		1.3	U		1.4	U		1.4	U	
1,2-DICHLOROBENZENE		0.75	U		0.86	U		0.94	U		0.94	U	
1,2-DICHLOROETHANE		0.96	U		1.1	U		1.2	U		1.2	U	
1,2-DICHLOROPROPANE		1.3	U		1.5	U		1.7	U		1.7	U	
1,3-DICHLOROBENZENE		0.6	U		0.68	U		0.74	U		0.74	U	
1,4-DICHLOROBENZENE		0.42	U		0.48	U		0.53	U		0.53	U	
2-BUTANONE		5.7	U		6.5	U		7.1	U		7.1	U	
2-HEXANONE		4.6	U		5.3	U		5.8	U		5.8	U	
4-METHYL-2-PENTANONE		5.7	U		6.5	U		7.1	U		7.1	U	
ACETONE		9.1	U	B	9.9	U	B	12	U	B	12	U	B
BENZENE		0.88	U		1	U		1.1	U		1.1	U	
BROMODICHLOROMETHANE		0.58	U		0.66	U		0.72	U		0.72	U	
BROMOFORM		0.67	U		0.77	U		0.84	U		0.84	U	
BROMOMETHANE		1	U		1.2	U		1.3	U		1.3	U	
CARBON DISULFIDE		2.4	U	B	2.8	U	B	3	U	B	3	U	B
CARBON TETRACHLORIDE		1.2	U		1.4	U		1.6	U		1.6	U	
CHLOROBENZENE		0.49	U		0.56	U		0.61	U		0.61	U	
CHLORODIBROMOMETHANE		0.96	U		1.1	U		1.2	U		1.2	U	
CHLOROETHANE		1.2	U		1.4	U		1.6	U		1.6	U	
CHLOROFORM		0.34	U		0.38	U		0.42	U		0.42	U	
CHLOROMETHANE		1.3	U		1.5	U		1.7	U		1.7	U	
CIS-1,2-DICHLOROETHENE		0.87	U		1	U		1.1	U		1.1	U	
CIS-1,3-DICHLOROPROPENE		0.69	U		0.79	U		0.86	U		0.86	U	
CYCLOHEXANE		1.3	U		1.5	U		1.7	U		1.7	U	
DICHLORODIFLUOROMETHANE		0.88	U		1	U		1.1	U		1.1	U	
ETHYLBENZENE		0.62	U		0.72	U		0.78	U		0.78	U	
ISOPROPYLBENZENE		0.88	U		1	U		1.1	U		1.1	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-8			SE3674-9			SE3674-10			SE3674-11		
FRACTION: OV	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		2.6	U		3	U		3.2	U		3.2	U	
METHYL CYCLOHEXANE		0.92	U		1	U		1.2	U		1.2	U	
METHYL TERT-BUTYL ETHER		1	U		1.2	U		1.3	U		1.3	U	
METHYLENE CHLORIDE		7.6	U		8.7	U		9.5	U		9.5	U	
STYRENE		0.49	U		0.56	U		0.61	U		0.61	U	
TETRACHLOROETHENE		1.2	U		1.3	U		1.4	U		7.2		
TOLUENE		1.3	U		1.5	U		1.7	U		1.7	U	
TOTAL XYLENES		1.2	U		1.4	U		1.6	U		1.6	U	
TRANS-1,2-DICHLOROETHENE		0.68	U		0.78	U		0.85	U		0.85	U	
TRANS-1,3-DICHLOROPROPENE		0.82	U		0.95	U		1	U		1	U	
TRICHLOROETHENE		0.57	U		0.65	U		0.71	U		0.71	U	
TRICHLOROFLUOROMETHANE		0.87	U		1	U		1.1	U		1.1	U	
VINYL CHLORIDE		0.84	U		0.96	U		1	U		1	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011			TB-03		
SDG: JAX04	LAB_ID	SE3674-12			SE3674-14			SE3674-15			SE3674-17		
FRACTION: OV	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.0			79.6			86.0			100.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.42	U		0.5	U		0.42	U		0.42	U	
1,1,2,2-TETRACHLOROETHANE		0.83	U		1	U		0.84	U		0.84	U	
1,1,2-TRICHLOROETHANE		0.96	U		1.2	U		0.97	U		0.97	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.89	U		1.1	U		0.9	U		0.9	U	
1,1-DICHLOROETHANE		1.7	U		2	U		1.7	U		1.7	U	
1,1-DICHLOROETHENE		0.92	U		1.1	U		0.93	U		0.93	U	
1,2,4-TRICHLOROBENZENE		0.78	U		0.95	U		0.79	U		0.79	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.5	U		1.8	U		1.5	U		1.5	U	
1,2-DIBROMOETHANE		1.2	U		1.4	U		1.2	U		1.2	U	
1,2-DICHLOROBENZENE		0.77	U		0.94	U		0.78	U		0.78	U	
1,2-DICHLOROETHANE		0.99	U		1.2	U		1	U		1	U	
1,2-DICHLOROPROPANE		1.4	U		1.7	U		1.4	U		1.4	U	
1,3-DICHLOROBENZENE		0.61	U		0.74	U		0.62	U		0.62	U	
1,4-DICHLOROBENZENE		0.44	U		0.53	U		0.44	U		0.44	U	
2-BUTANONE		5.8	U		7.1	U		5.9	U		5.9	U	
2-HEXANONE		4.8	U		5.8	U		4.8	U		4.8	U	
4-METHYL-2-PENTANONE		5.8	U		7.1	U		5.9	U		5.9	U	
ACETONE		8.1	U	B	9.6	U	B	8.8	U	B	7.8	J	CP
BENZENE		0.91	U		1.1	U		0.92	U		0.92	U	
BROMODICHLOROMETHANE		0.59	U		0.72	U		0.6	U		0.6	U	
BROMOFORM		0.69	U		0.84	U		0.7	U		0.7	U	
BROMOMETHANE		1.1	U		1.3	U		1.1	U		1.1	U	
CARBON DISULFIDE		2.5	U	B	3	U	B	2.5	U	B	1.2	J	P
CARBON TETRACHLORIDE		1.3	U		1.6	U		1.3	U		1.3	U	
CHLOROBENZENE		0.5	U		0.61	U		0.51	U		0.51	U	
CHLORODIBROMOMETHANE		0.99	U		1.2	U		1	U		1	U	
CHLOROETHANE		1.3	U		1.6	U		1.3	U		1.3	U	
CHLOROFORM		0.35	U		0.42	U		0.35	U		0.35	U	
CHLOROMETHANE		1.4	U		1.7	U		1.4	U		1.4	U	
CIS-1,2-DICHLOROETHENE		0.9	U		1.1	U		0.91	U		0.91	U	
CIS-1,3-DICHLOROPROPENE		0.71	U		0.86	U		0.72	U		0.72	U	
CYCLOHEXANE		1.4	U		1.7	U		1.4	U		1.4	U	
DICHLORODIFLUOROMETHANE		0.91	U		1.1	U		0.92	U		0.92	U	
ETHYLBENZENE		0.64	U		0.78	U		0.65	U		0.65	U	
ISOPROPYLBENZENE		0.91	U		1.1	U		0.92	U		0.92	U	

PROJ_NO: 01511 SDG: JAX04 FRACTION: OV MEDIA: SOIL	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011			TB-03		
	LAB_ID	SE3674-12			SE3674-14			SE3674-15			SE3674-17		
	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.0			79.6			86.0			100.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		2.7	U		3.2	U		2.7	U		2.7	U	
METHYL CYCLOHEXANE		0.95	U		1.2	U		0.96	U		0.96	U	
METHYL TERT-BUTYL ETHER		1.1	U		1.3	U		1.1	U		1.1	U	
METHYLENE CHLORIDE		7.8	U		9.5	U		7.9	U		7.9	U	
STYRENE		0.5	U		0.61	U		0.51	U		0.51	U	
TETRACHLOROETHENE		2.6	J	P	3.5	J	P	1.2	U		1.2	U	
TOLUENE		1.4	U		1.7	U		1.4	U		1.4	U	
TOTAL XYLENES		1.3	U		1.6	U		1.3	U		1.3	U	
TRANS-1,2-DICHLOROETHENE		0.7	U		0.85	U		0.71	U		0.71	U	
TRANS-1,3-DICHLOROPROPENE		0.85	U		1	U		0.86	U		0.86	U	
TRICHLOROETHENE		0.58	U		0.71	U		0.59	U		0.59	U	
TRICHLOROFLUOROMETHANE		0.9	U		1.1	U		0.91	U		0.91	U	
VINYL CHLORIDE		0.86	U		1	U		0.87	U		0.87	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT22-12-06232011			JAX45-DPT22-12-06232011DL			JAX45-DPT22-20-06232011			JAX45-DPT22-20-06232011DL		
SDG: JAX04	LAB_ID	SE3674-4			SE3674-4DL			SE3674-3			SE3674-3DL		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U					0.2	U				
1,1,2,2-TETRACHLOROETHANE		0.38	U					0.38	U				
1,1,2-TRICHLOROETHANE		0.53	J	P				0.33	U				
1,1,2-TRICHLOROTRIFLUOROETHANE					110			0.31	U				
1,1-DICHLOROETHANE		44						14					
1,1-DICHLOROETHENE					260			130					
1,2,4-TRICHLOROBENZENE		0.37	U					0.37	U				
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U					0.5	U				
1,2-DIBROMOETHANE		0.22	U					0.22	U				
1,2-DICHLOROBENZENE		0.15	U					0.15	U				
1,2-DICHLOROETHANE					280			88					
1,2-DICHLOROPROPANE		0.25	U					0.25	U				
1,3-DICHLOROBENZENE		0.26	U					0.26	U				
1,4-DICHLOROBENZENE		0.24	U					0.24	U				
2-BUTANONE		1.3	U					1.3	U				
2-HEXANONE		1.7	U					1.7	U				
4-METHYL-2-PENTANONE		1.3	U					1.3	U				
ACETONE		2.2	UJ	C				4.5	U	B			
BENZENE		1.5						0.52	J	P			
BROMODICHLOROMETHANE		0.33	U					0.33	U				
BROMOFORM		0.23	U					0.23	U				
BROMOMETHANE		0.49	U					0.49	U				
CARBON DISULFIDE		0.25	U					0.63	J	P			
CARBON TETRACHLORIDE		0.22	U					0.22	U				
CHLOROBENZENE		0.22	U					0.22	U				
CHLORODIBROMOMETHANE		0.3	U					0.3	U				
CHLOROETHANE		0.55	U					0.55	U				
CHLOROFORM		0.32	U					0.32	U				
CHLOROMETHANE		0.36	U					0.36	U				
CIS-1,2-DICHLOROETHENE					800						320		
CIS-1,3-DICHLOROPROPENE		0.19	U					0.19	U				
CYCLOHEXANE		0.31	U					0.31	U				
DICHLORODIFLUOROMETHANE		0.24	U					0.24	U				
ETHYLBENZENE		0.21	U					0.21	U				
ISOPROPYLBENZENE		0.23	U					0.23	U				

PROJ_NO: 01511 SDG: JAX04 FRACTION: OV MEDIA: WATER	NSAMPLE	JAX45-DPT22-12-06232011			JAX45-DPT22-12-06232011DL			JAX45-DPT22-20-06232011			JAX45-DPT22-20-06232011DL		
	LAB_ID	SE3674-4			SE3674-4DL			SE3674-3			SE3674-3DL		
	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U					0.53	U				
METHYL CYCLOHEXANE		0.3	U					0.3	U				
METHYL TERT-BUTYL ETHER		0.36	U					0.36	U				
METHYLENE CHLORIDE		1.1	U					1.1	U				
STYRENE		0.23	U					0.23	U				
TETRACHLOROETHENE		0.4	U					0.4	U				
TOLUENE		0.27	U					0.27	U				
TOTAL XYLENES		0.25	U					0.25	U				
TRANS-1,2-DICHLOROETHENE		3.6						10					
TRANS-1,3-DICHLOROPROPENE		0.2	U					0.2	U				
TRICHLOROETHENE		58						5.8					
TRICHLOROFLUOROMETHANE		0.24	U					0.24	U				
VINYL CHLORIDE		1.6	J	P				0.73	J	P			

PROJ_NO: 01511	NSAMPLE	JAX45-DPT22-40-06232011			JAX45-DPT22-60-06232011			JAX45-SBRINSATE-06242011			TB-04		
SDG: JAX04	LAB_ID	SE3674-2			SE3674-1			SE3674-16			SE3674-18		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
1,1,2,2-TETRACHLOROETHANE		0.38	U		0.38	U		0.38	U		0.38	U	
1,1,2-TRICHLOROETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,1-DICHLOROETHANE		2.1			0.21	U		0.21	U		0.21	U	
1,1-DICHLOROETHENE		20			0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.37	U		0.37	U		0.37	U		0.37	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		16			0.2	U		0.2	U		0.2	U	
1,2-DICHLOROPROPANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,3-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,4-DICHLOROBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
2-BUTANONE		1.3	U		1.3	U		16			2	J	P
2-HEXANONE		1.7	U		1.7	U		1.7	U		1.7	U	
4-METHYL-2-PENTANONE		1.3	U		1.3	U		1.3	U		1.3	U	
ACETONE		2.2	UJ	C	2.2	UJ	C	29	J	C	5.8	J	C
BENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
BROMODICHLOROMETHANE		0.33	U		0.33	U		0.33	U		0.33	U	
BROMOFORM		0.23	U		0.23	U		0.23	U		0.23	U	
BROMOMETHANE		0.49	U		0.49	U		0.49	U		0.49	U	
CARBON DISULFIDE		0.25	U		0.25	U		0.25	U		0.25	U	
CARBON TETRACHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLOROBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
CHLORODIBROMOMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLOROETHANE		0.55	U		0.55	U		0.55	U		0.55	U	
CHLOROFORM		0.32	U		0.32	U		0.32	U		0.32	U	
CHLOROMETHANE		0.44	J	P	0.36	U		0.4	J	P	0.36	U	
CIS-1,2-DICHLOROETHENE		11			0.21	U		0.21	U		0.21	U	
CIS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
CYCLOHEXANE		0.31	U		0.31	U		0.31	U		0.31	U	
DICHLORODIFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
ETHYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
ISOPROPYLBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DPT22-40-06232011			JAX45-DPT22-60-06232011			JAX45-SBRINSATE-06242011			TB-04		
SDG: JAX04	LAB_ID	SE3674-2			SE3674-1			SE3674-16			SE3674-18		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		0.53	U		0.53	U		0.53	U		0.53	U	
METHYL CYCLOHEXANE		0.3	U		0.3	U		0.3	U		0.3	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.36	U		0.36	U	
METHYLENE CHLORIDE		1.1	U		1.1	U		1.1	U		1.1	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.4	U		0.4	U		0.4	U		0.4	U	
TOLUENE		0.27	U		0.27	U		0.27	U		0.27	U	
TOTAL XYLENES		0.25	U		0.25	U		0.25	U		0.25	U	
TRANS-1,2-DICHLOROETHENE		0.6	J	P	0.25	U		0.25	U		0.25	U	
TRANS-1,3-DICHLOROPROPENE		0.2	U		0.2	U		0.2	U		0.2	U	
TRICHLOROETHENE		19			0.28	U		0.28	U		0.28	U	
TRICHLOROFLUOROMETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
VINYL CHLORIDE		0.25	U		0.25	U		0.25	U		0.25	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-DUP01-06242011DL			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-13			SE3674-13DL			SE3674-5			SE3674-6		
FRACTION: PAH	SAMP_DATE	6/24/2011			6/24/2011			6/23/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	92.8			92.8			72.3			85.7		
	DUP_OF	JAX45-SB12-SB-06242011			JAX45-SB12-SB-06242011								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1-METHYLNAPHTHALENE		3.6	J	P				6.7	J	P	8.9	J	P
2-METHYLNAPHTHALENE		2.6	J	P				7.8	J	P	5.4	J	P
ACENAPHTHENE		13	J	P				17	J	P	68		
ACENAPHTHYLENE		2.8	J	P				2.9	J	P	1.4	U	
ANTHRACENE		18	J	P				12	J	P	57		
BENZO(A)ANTHRACENE		110						68					
BENZO(A)PYRENE		120						87			300		
BENZO(B)FLUORANTHENE		190						150					
BENZO(G,H,I)PERYLENE		70						69			130		
BENZO(K)FLUORANTHENE		69						57			170		
CHRYSENE		120						100					
DIBENZO(A,H)ANTHRACENE		20	J	P				15	J	P	49		
FLUORANTHENE					300			200					
FLUORENE		8.7	J	P				10	J	P	46		
INDENO(1,2,3-CD)PYRENE		100	J	C				100	J	C	240		
NAPHTHALENE		3	J	P				15	J	P	6.3	J	P
PHENANTHRENE		130						150					
PYRENE		200						140					

PROJ_NO: 01511	NSAMPLE	JAX45-SB06-SB-06242011DL			JAX45-SB07-SB-06242011			JAX45-SB07-SB-06242011DL			JAX45-SB08-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-6DL			SE3674-7			SE3674-7DL			SE3674-8		
FRACTION: PAH	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.7			82.2			82.2			94.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1-METHYLNAPHTHALENE					10	J	P				1.8	U	
2-METHYLNAPHTHALENE					13	J	P				2.3	U	
ACENAPHTHENE					25						4	J	P
ACENAPHTHYLENE					6.3	J	P				11	J	P
ANTHRACENE					12	J	P				6.6	J	P
BENZO(A)ANTHRACENE		280	J	C	130						110	J	C
BENZO(A)PYRENE					170						150		
BENZO(B)FLUORANTHENE		430			280						240		
BENZO(G,H,I)PERYLENE					100						99		
BENZO(K)FLUORANTHENE					86						76		
CHRYSENE		320			170						120		
DIBENZO(A,H)ANTHRACENE					30						34		
FLUORANTHENE		640						340			150		
FLUORENE					16	J	P				3.3	U	
INDENO(1,2,3-CD)PYRENE					150	J	C				150	J	C
NAPHTHALENE					33						2.7	U	
PHENANTHRENE		360	J	C	200						40	J	C
PYRENE		390	J	C	220						110	J	C

PROJ_NO: 01511	NSAMPLE	JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011			JAX45-SB11-SB-06242011DL		
SDG: JAX04	LAB_ID	SE3674-9			SE3674-10			SE3674-11			SE3674-11DL		
FRACTION: PAH	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	85.8			82.3			83.5			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1-METHYLNAPHTHALENE		1.9	U		1.9	U		7.2	J	P			
2-METHYLNAPHTHALENE		2.5	U		2.5	U		3.5	J	P			
ACENAPHTHENE		1.7	U		1.7	U		37					
ACENAPHTHYLENE		1.4	U		1.3	U		1.4	U				
ANTHRACENE		2.8	J	P	1.3	U		74					
BENZO(A)ANTHRACENE		32			4	J	P	230					
BENZO(A)PYRENE		35			11	J	P	160					
BENZO(B)FLUORANTHENE		52			15	J	P	260					
BENZO(G,H,I)PERYLENE		18	J	P	9.4	J	P	67					
BENZO(K)FLUORANTHENE		18	J	P	5	J	P	88					
CHRYSENE		32			6.1	J	P	200					
DIBENZO(A,H)ANTHRACENE		6.9	J	P	2.8	J	P	26					
FLUORANTHENE		58			7.7	J	P				660		
FLUORENE		3.6	U		3.6	U		27					
INDENO(1,2,3-CD)PYRENE		32	J	C	14	J	CP	120	J	C			
NAPHTHALENE		2.9	U		2.9	U		3	U				
PHENANTHRENE		9.9	J	P	2.2	J	P				360	J	C
PYRENE		34			6	J	P				350	J	C

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-12			SE3674-14			SE3674-15		
FRACTION: PAH	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.0			79.6			86.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1-METHYLNAPHTHALENE		5.9	J	P	3.2	J	P	2	U	
2-METHYLNAPHTHALENE		5.7	J	P	3	J	P	2.5	U	
ACENAPHTHENE		18	J	P	8.7	J	P	1.7	U	
ACENAPHTHYLENE		2.3	J	P	3.8	J	P	1.4	U	
ANTHRACENE		13	J	P	7.9	J	P	1.4	U	
BENZO(A)ANTHRACENE		82			72	J	D	2.5	J	P
BENZO(A)PYRENE		110			93	J	D	5	J	P
BENZO(B)FLUORANTHENE		190			160	J	D	6.9	J	P
BENZO(G,H,I)PERYLENE		67			78	J	D	5.4	J	P
BENZO(K)FLUORANTHENE		60			49			3.6	U	
CHRYSENE		120			89	J	D	3.4	J	P
DIBENZO(A,H)ANTHRACENE		18	J	P	19	J	P	2.1	U	
FLUORANTHENE		250			150	J	D	5.5	J	P
FLUORENE		14	J	P	6	J	P	3.7	U	
INDENO(1,2,3-CD)PYRENE		99	J	C	96	J	CD	6.6	J	CP
NAPHTHALENE		13	J	P	4	J	P	3	U	
PHENANTHRENE		160			76	J	D	2.2	J	P
PYRENE		160			120	J	D	3.9	J	P

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011			JAX45-SB07-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-13			SE3674-5			SE3674-6			SE3674-7		
FRACTION: OS	SAMP_DATE	6/24/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	92.8			72.3			85.7			82.2		
	DUP_OF	JAX45-SB12-SB-06242011											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		74	U		99	U		84	U		88	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		90	UJ	C	120	UJ	C	100	UJ	C	110	UJ	C
2,4,5-TRICHLOROPHENOL		160	U		210	U		180	U		190	U	
2,4,6-TRICHLOROPHENOL		160	U		210	U		180	U		190	U	
2,4-DICHLOROPHENOL		150	U		200	U		170	U		180	U	
2,4-DIMETHYLPHENOL		170	U		220	U		190	U		200	U	
2,4-DINITROPHENOL		380	U		510	U		440	U		450	U	
2,4-DINITROTOLUENE		86	U		120	U		98	U		100	U	
2,6-DINITROTOLUENE		80	U		110	U		92	U		95	U	
2-CHLORONAPHTHALENE		88	U		120	U		100	U		100	U	
2-CHLOROPHENOL		160	U		220	U		190	U		200	U	
2-METHYLPHENOL		200	U		270	U		230	U		240	U	
2-NITROANILINE		76	U		100	U		87	U		90	U	
2-NITROPHENOL		170	U		230	U		190	U		200	U	
3&4-METHYLPHENOL		190	U		250	U		220	U		220	U	
3,3'-DICHLOROBENZIDINE		110	U		150	U		130	U		140	U	
3-NITROANILINE		95	U		130	U		110	U		110	U	
4,6-DINITRO-2-METHYLPHENOL		340	U		460	U		390	U		410	U	
4-BROMOPHENYL PHENYL ETHER		86	U		120	U		98	U		100	U	
4-CHLORO-3-METHYLPHENOL		170	U		220	U		190	U		200	U	
4-CHLOROANILINE		120	U		160	U		140	U		140	U	
4-CHLOROPHENYL PHENYL ETHER		78	U		100	U		90	U		94	U	
4-NITROANILINE		130	U		180	U		160	U		160	U	
4-NITROPHENOL		310	U		420	U		360	U		370	U	
ACETOPHENONE		180	U		240	U		210	U		210	U	
ATRAZINE		92	U		120	U		100	U		110	U	
BENZALDEHYDE		120	UJ	C	160	U		140	U		140	U	
BIS(2-CHLOROETHOXY)METHANE		97	U		130	U		110	U		120	U	
BIS(2-CHLOROETHYL)ETHER		82	U		110	U		94	U		98	U	
BIS(2-ETHYLHEXYL)PHTHALATE		230	J	P	130	U		110	U		120	U	
BUTYL BENZYL PHTHALATE		94	U		130	U		110	U		110	U	
CAPROLACTAM		140	U		200	U		170	U		170	U	
CARBAZOLE		110	U		150	U		130	U		130	U	
DIBENZOFURAN		80	U		110	U		92	U		95	U	
DIETHYL PHTHALATE		80	U		110	U		93	U		96	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-8			SE3674-9			SE3674-10			SE3674-11		
FRACTION: OS	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		76	U		83	U		82	U		85	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		93	UJ	C	100	UJ	C	100	UJ	C	100	UJ	C
2,4,5-TRICHLOROPHENOL		160	U		180	U		170	U		180	U	
2,4,6-TRICHLOROPHENOL		160	U		180	U		170	U		180	U	
2,4-DICHLOROPHENOL		160	U		170	U		170	U		180	U	
2,4-DIMETHYLPHENOL		170	U		190	U		180	U		190	U	
2,4-DINITROPHENOL		390	U		430	U		420	U		440	U	
2,4-DINITROTOLUENE		89	U		96	U		95	U		99	U	
2,6-DINITROTOLUENE		82	U		89	U		88	U		92	U	
2-CHLORONAPHTHALENE		91	U		98	U		97	U		100	U	
2-CHLOROPHENOL		170	U		180	U		180	U		190	U	
2-METHYLPHENOL		210	U		230	U		220	U		230	U	
2-NITROANILINE		78	U		85	U		84	U		88	U	
2-NITROPHENOL		170	U		190	U		190	U		190	U	
3&4-METHYLPHENOL		200	U		210	U		210	U		220	U	
3,3'-DICHLOROBENZIDINE		120	U		130	U		130	U		130	U	
3-NITROANILINE		98	U		110	U		100	U		110	U	
4,6-DINITRO-2-METHYLPHENOL		350	U		380	U		380	U		390	U	
4-BROMOPHENYL PHENYL ETHER		89	U		96	U		95	U		99	U	
4-CHLORO-3-METHYLPHENOL		170	U		190	U		180	U		190	U	
4-CHLOROANILINE		120	U		130	U		130	U		140	U	
4-CHLOROPHENYL PHENYL ETHER		82	U		88	U		87	U		91	U	
4-NITROANILINE		140	U		150	U		150	U		160	U	
4-NITROPHENOL		320	U		350	U		340	U		360	U	
ACETOPHENONE		190	U		200	U		200	U		210	U	
ATRAZINE		95	U		100	U		100	U		110	U	
BENZALDEHYDE		120	U		140	U		130	U		140	U	
BIS(2-CHLOROETHOXY)METHANE		100	U		110	U		110	U		110	U	
BIS(2-CHLOROETHYL)ETHER		85	U		92	U		90	U		94	U	
BIS(2-ETHYLHEXYL)PHTHALATE		100	U		110	U		110	U		220	J	P
BUTYL BENZYL PHTHALATE		97	U		100	U		100	U		110	U	
CAPROLACTAM		150	U		160	U		160	U		170	U	
CARBAZOLE		120	U		120	U		120	U		130	U	
DIBENZOFURAN		82	U		89	U		88	U		92	U	
DIETHYL PHTHALATE		84	U		90	U		89	U		93	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-12			SE3674-14			SE3674-15		
FRACTION: OS	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.0			79.6			86.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		78	U		86	U		85	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		95	UJ	C	100	UJ	C	100	UJ	C
2,4,5-TRICHLOROPHENOL		170	U		180	U		180	U	
2,4,6-TRICHLOROPHENOL		170	U		180	U		180	U	
2,4-DICHLOROPHENOL		160	U		180	U		170	U	
2,4-DIMETHYLPHENOL		180	U		200	U		190	U	
2,4-DINITROPHENOL		400	U		450	U		440	U	
2,4-DINITROTOLUENE		91	U		100	U		98	U	
2,6-DINITROTOLUENE		85	U		94	U		92	U	
2-CHLORONAPHTHALENE		93	U		100	U		100	U	
2-CHLOROPHENOL		180	U		190	U		190	U	
2-METHYLPHENOL		210	U		240	U		230	U	
2-NITROANILINE		80	U		89	U		87	U	
2-NITROPHENOL		180	U		200	U		190	U	
3&4-METHYLPHENOL		200	U		220	U		220	U	
3,3'-DICHLOROBENZIDINE		120	U		140	U		130	U	
3-NITROANILINE		100	U		110	U		110	U	
4,6-DINITRO-2-METHYLPHENOL		360	U		400	U		390	U	
4-BROMOPHENYL PHENYL ETHER		91	U		100	U		98	U	
4-CHLORO-3-METHYLPHENOL		180	U		200	U		190	U	
4-CHLOROANILINE		130	U		140	U		140	U	
4-CHLOROPHENYL PHENYL ETHER		84	U		92	U		90	U	
4-NITROANILINE		140	U		160	U		160	U	
4-NITROPHENOL		330	U		370	U		360	U	
ACETOPHENONE		190	U		210	U		210	U	
ATRAZINE		98	U		110	U		100	U	
BENZALDEHYDE		130	UJ	C	140	UJ	C	140	U	
BIS(2-CHLOROETHOXY)METHANE		100	U		110	U		110	U	
BIS(2-CHLOROETHYL)ETHER		87	U		96	U		94	U	
BIS(2-ETHYLHEXYL)PHTHALATE		100	U		120	U		110	U	
BUTYL BENZYL PHTHALATE		100	U		110	U		110	U	
CAPROLACTAM		150	U		170	U		170	U	
CARBAZOLE		120	U		130	U		130	U	
DIBENZOFURAN		85	U		94	U		92	U	
DIETHYL PHTHALATE		86	U		95	U		93	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011			JAX45-SB07-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-13			SE3674-5			SE3674-6			SE3674-7		
FRACTION: OS	SAMP_DATE	6/24/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	92.8			72.3			85.7			82.2		
	DUP_OF	JAX45-SB12-SB-06242011											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		78	U		100	U		90	U		94	U	
DI-N-BUTYL PHTHALATE		100	U		140	U		120	U		120	U	
DI-N-OCTYL PHTHALATE		210	U		290	U		240	U		250	U	
HEXACHLOROBENZENE		82	U		110	U		95	U		99	U	
HEXACHLOROBUTADIENE		84	U		110	U		96	U		100	U	
HEXACHLOROCYCLOPENTADIENE		82	U		110	U		95	U		99	U	
HEXACHLOROETHANE		97	U		130	U		110	U		120	U	
ISOPHORONE		76	U		100	U		87	U		90	U	
NITROBENZENE		92	U		120	U		100	U		110	U	
N-NITROSO-DI-N-PROPYLAMINE		84	UJ	C	110	U		96	U		100	U	
N-NITROSODIPHENYLAMINE		220	U		300	U		250	U		260	U	
PENTACHLOROPHENOL		240	U		320	U		270	U		280	U	
PHENOL		160	U		210	U		180	U		190	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-8			SE3674-9			SE3674-10			SE3674-11		
FRACTION: OS	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		82	U		88	U		87	U		91	U	
DI-N-BUTYL PHTHALATE		100	U		110	U		110	U		120	U	
DI-N-OCTYL PHTHALATE		220	U		240	U		240	U		250	U	
HEXACHLOROBENZENE		86	U		93	U		92	U		96	U	
HEXACHLOROBUTADIENE		87	U		94	U		93	U		97	U	
HEXACHLOROCYCLOPENTADIENE		86	U		93	U		92	U		96	U	
HEXACHLOROETHANE		100	U		110	U		110	U		110	U	
ISOPHORONE		78	U		85	U		84	U		88	U	
NITROBENZENE		95	U		100	U		100	U		110	U	
N-NITROSO-DI-N-PROPYLAMINE		87	U		94	U		93	U		97	U	
N-NITROSODIPHENYLAMINE		230	U		250	U		240	U		260	U	
PENTACHLOROPHENOL		250	U		270	U		260	U		280	U	
PHENOL		160	U		180	U		170	U		180	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-12			SE3674-14			SE3674-15		
FRACTION: OS	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.0			79.6			86.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		84	U		92	U		90	U	
DI-N-BUTYL PHTHALATE		110	U		120	U		120	U	
DI-N-OCTYL PHTHALATE		230	U		250	U		240	U	
HEXACHLOROBENZENE		88	U		97	U		95	U	
HEXACHLOROBUTADIENE		89	U		98	U		96	U	
HEXACHLOROCYCLOPENTADIENE		88	U		97	U		95	U	
HEXACHLOROETHANE		100	U		110	U		110	U	
ISOPHORONE		80	U		89	U		87	U	
NITROBENZENE		98	U		110	U		100	U	
N-NITROSO-DI-N-PROPYLAMINE		89	UJ	C	98	UJ	C	96	U	
N-NITROSODIPHENYLAMINE		230	U		260	U		250	U	
PENTACHLOROPHENOL		250	U		280	U		270	U	
PHENOL		170	U		180	U		180	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011			JAX45-SB07-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-13			SE3674-5			SE3674-6			SE3674-7		
FRACTION: PCB	SAMP_DATE	6/24/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	92.8			72.3			85.7			82.2		
	DUP_OF	JAX45-SB12-SB-06242011											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		6.4	U		8	UJ	C	6.7	UJ	C	7.2	UJ	C
AROCLOR-1221		8.4	U		10	U		8.8	U		9.5	U	
AROCLOR-1232		9.9	U		12	U		10	U		11	U	
AROCLOR-1242		6.2	U		7.7	U		6.5	U		7	U	
AROCLOR-1248		6.5	U		8.1	U		6.8	U		7.3	U	
AROCLOR-1254		5	U		6.2	U		5.2	U		5.6	U	
AROCLOR-1260		6.4	U		8	UJ	C	6.7	UJ	C	7.2	UJ	C

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-8			SE3674-9			SE3674-10			SE3674-11		
FRACTION: PCB	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		6.2	U		6.8	U		6.6	U		7	U	
AROCLOR-1221		8.2	U		9	U		8.6	U		9.2	U	
AROCLOR-1232		9.7	U		10	U		10	U		11	U	
AROCLOR-1242		6	U		6.6	U		6.4	U		6.8	U	
AROCLOR-1248		6.4	U		6.9	U		6.7	U		7.1	U	
AROCLOR-1254		4.9	U		5.4	U		5.1	U		5.5	U	
AROCLOR-1260		6.2	U		6.8	U		6.6	U		7	U	

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-12			SE3674-14			SE3674-15		
FRACTION: PCB	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.0			79.6			86.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		5.9	U		7.2	U		6.4	U	
AROCLOR-1221		7.8	U		9.5	U		8.4	U	
AROCLOR-1232		9.2	U		11	U		10	U	
AROCLOR-1242		5.7	U		7	U		6.2	U	
AROCLOR-1248		6	U		7.3	U		6.5	U	
AROCLOR-1254		4.6	U		5.6	U		5	U	
AROCLOR-1260		5.9	U		7.2	U		6.4	U	

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011			JAX45-SB07-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-13			SE3674-5			SE3674-6			SE3674-7		
FRACTION: PET	SAMP_DATE	6/24/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.8			72.3			85.7			82.2		
	DUP_OF	JAX45-SB12-SB-06242011											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C08-C40)		190			250			210			140		

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-8			SE3674-9			SE3674-10			SE3674-11		
FRACTION: PET	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C08-C40)		100			28			29			72		

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-12			SE3674-14			SE3674-15		
FRACTION: PET	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			79.6			86.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C08-C40)		230			200			30		

Appendix B

Results as Reported by the Laboratory

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-4
Client ID: 5-DPT22-12-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	I	1.6	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	L	270	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene		3.6	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		44.	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	L	610	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene		1.5	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	L	260	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		58.	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	I	0.53	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-4
Client ID: 5-DPT22-12-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	L	450	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		97.2	%					
Toluene-d8		106.	%					
1,2-Dichloroethane-d4		100.	%					
Dibromofluoromethane		98.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-4DL
Client ID: 5-DPT22-12-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	2.4	ug/L	10	2	20.	2.4	10.
Chloromethane	U	3.6	ug/L	10	2	20.	3.6	10.
Vinyl Chloride	U	2.5	ug/L	10	2	20.	2.5	10.
Bromomethane	U	4.9	ug/L	10	2	20.	4.9	10.
Chloroethane	U	5.5	ug/L	10	2	20.	5.5	10.
Trichlorofluoromethane	U	2.4	ug/L	10	2	20.	2.4	10.
1,1-Dichloroethene		260	ug/L	10	1	10.	3.5	5.0
Carbon Disulfide	U	2.5	ug/L	10	1	10.	2.5	5.0
Methylene Chloride	U	11.	ug/L	10	5	50.	11.	25.
Acetone	U	22.	ug/L	10	5	50.	22.	25.
trans-1,2-Dichloroethene	U	2.5	ug/L	10	1	10.	2.5	5.0
Methyl tert-butyl Ether	U	3.6	ug/L	10	1	10.	3.6	5.0
1,1-Dichloroethane		45.	ug/L	10	1	10.	2.1	5.0
cis-1,2-Dichloroethene		800	ug/L	10	1	10.	2.1	5.0
Chloroform	U	3.2	ug/L	10	1	10.	3.2	5.0
Carbon Tetrachloride	U	2.2	ug/L	10	1	10.	2.2	5.0
1,1,1-Trichloroethane	U	2.0	ug/L	10	1	10.	2.0	5.0
2-Butanone	U	13.	ug/L	10	5	50.	13.	25.
Benzene	U	2.6	ug/L	10	1	10.	2.6	5.0
1,2-Dichloroethane		280	ug/L	10	1	10.	2.0	5.0
Trichloroethene		57.	ug/L	10	1	10.	2.8	5.0
1,2-Dichloropropane	U	2.5	ug/L	10	1	10.	2.5	5.0
Bromodichloromethane	U	3.3	ug/L	10	1	10.	3.3	5.0
cis-1,3-Dichloropropene	U	1.9	ug/L	10	1	10.	1.9	5.0
Toluene	U	2.7	ug/L	10	1	10.	2.7	5.0
4-Methyl-2-Pentanone	U	13.	ug/L	10	5	50.	13.	25.
Tetrachloroethene	U	4.0	ug/L	10	1	10.	4.0	5.0
trans-1,3-Dichloropropene	U	2.0	ug/L	10	1	10.	2.0	5.0
1,1,2-Trichloroethane	U	3.3	ug/L	10	1	10.	3.3	5.0
Dibromochloromethane	U	3.0	ug/L	10	1	10.	3.0	5.0
1,2-Dibromoethane	U	2.2	ug/L	10	1	10.	2.2	5.0
2-Hexanone	U	17.	ug/L	10	5	50.	17.	25.
Chlorobenzene	U	2.2	ug/L	10	1	10.	2.2	5.0
Ethylbenzene	U	2.1	ug/L	10	1	10.	2.1	5.0
Styrene	U	2.3	ug/L	10	1	10.	2.3	5.0

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-4DL
Client ID: 5-DPT22-12-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	2.3	ug/L	10	1	10.	2.3	5.0
Isopropylbenzene	U	2.3	ug/L	10	1	10.	2.3	5.0
1,1,2,2-Tetrachloroethane	U	3.8	ug/L	10	1	10.	3.8	5.0
1,3-Dichlorobenzene	U	2.6	ug/L	10	1	10.	2.6	5.0
1,4-Dichlorobenzene	U	2.4	ug/L	10	1	10.	2.4	5.0
1,2-Dichlorobenzene	U	1.5	ug/L	10	1	10.	1.5	5.0
1,2-Dibromo-3-Chloropropane	U	5.0	ug/L	10	1	10.	5.0	7.5
1,2,4-Trichlorobenzene	U	3.7	ug/L	10	1	10.	3.7	5.0
Freon-113		110	ug/L	10	1	10.	3.1	5.0
Cyclohexane	U	3.1	ug/L	10	1	10.	3.1	5.0
Methyl acetate	U	5.3	ug/L	10	1	10.	5.3	7.5
Methylcyclohexane	U	3.0	ug/L	10	1	10.	3.0	5.0
Total Xylene	U	2.5	ug/L	10	3	30.	2.5	15.
P-Bromofluorobenzene		95.5	%					
Toluene-d8		105.	%					
1,2-Dichloroethane-d4		103.	%					
Dibromofluoromethane		99.0	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-3
Client ID: 5-DPT22-20-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	I	0.73	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		130	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	I	0.63	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	I	4.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene		10.	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		14.	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	L	300	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	I	0.52	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		88.	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		5.8	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-3
Client ID: 5-DPT22-20-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		107.	%					
Toluene-d8		118.	%					
1,2-Dichloroethane-d4		113.	%					
Dibromofluoromethane		108.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-3DL
Client ID: 5-DPT22-20-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.96	ug/L	4	2	8.0	0.96	4.0
Chloromethane	U	1.4	ug/L	4	2	8.0	1.4	4.0
Vinyl Chloride	U	1.0	ug/L	4	2	8.0	1.0	4.0
Bromomethane	U	2.0	ug/L	4	2	8.0	2.0	4.0
Chloroethane	U	2.2	ug/L	4	2	8.0	2.2	4.0
Trichlorofluoromethane	U	0.96	ug/L	4	2	8.0	0.96	4.0
1,1-Dichloroethene		140	ug/L	4	1	4.0	1.4	2.0
Carbon Disulfide	U	1.0	ug/L	4	1	4.0	1.0	2.0
Methylene Chloride	U	4.5	ug/L	4	5	20.	4.5	10.
Acetone	U	8.8	ug/L	4	5	20.	8.8	10.
trans-1,2-Dichloroethene		10.	ug/L	4	1	4.0	1.0	2.0
Methyl tert-butyl Ether	U	1.4	ug/L	4	1	4.0	1.4	2.0
1,1-Dichloroethane		14.	ug/L	4	1	4.0	0.84	2.0
cis-1,2-Dichloroethene		320	ug/L	4	1	4.0	0.84	2.0
Chloroform	U	1.3	ug/L	4	1	4.0	1.3	2.0
Carbon Tetrachloride	U	0.88	ug/L	4	1	4.0	0.88	2.0
1,1,1-Trichloroethane	U	0.80	ug/L	4	1	4.0	0.80	2.0
2-Butanone	U	5.2	ug/L	4	5	20.	5.2	10.
Benzene	U	1.0	ug/L	4	1	4.0	1.0	2.0
1,2-Dichloroethane		89.	ug/L	4	1	4.0	0.80	2.0
Trichloroethene		5.0	ug/L	4	1	4.0	1.1	2.0
1,2-Dichloropropane	U	1.0	ug/L	4	1	4.0	1.0	2.0
Bromodichloromethane	U	1.3	ug/L	4	1	4.0	1.3	2.0
cis-1,3-Dichloropropene	U	0.76	ug/L	4	1	4.0	0.76	2.0
Toluene	U	1.1	ug/L	4	1	4.0	1.1	2.0
4-Methyl-2-Pentanone	U	5.3	ug/L	4	5	20.	5.3	10.
Tetrachloroethene	U	1.6	ug/L	4	1	4.0	1.6	2.0
trans-1,3-Dichloropropene	U	0.80	ug/L	4	1	4.0	0.80	2.0
1,1,2-Trichloroethane	U	1.3	ug/L	4	1	4.0	1.3	2.0
Dibromochloromethane	U	1.2	ug/L	4	1	4.0	1.2	2.0
1,2-Dibromoethane	U	0.88	ug/L	4	1	4.0	0.88	2.0
2-Hexanone	U	6.8	ug/L	4	5	20.	6.8	10.
Chlorobenzene	U	0.88	ug/L	4	1	4.0	0.88	2.0
Ethylbenzene	U	0.84	ug/L	4	1	4.0	0.84	2.0
Styrene	U	0.92	ug/L	4	1	4.0	0.92	2.0

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-3DL
Client ID: 5-DPT22-20-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.92	ug/L	4	1	4.0	0.92	2.0
Isopropylbenzene	U	0.92	ug/L	4	1	4.0	0.92	2.0
1,1,2,2-Tetrachloroethane	U	1.5	ug/L	4	1	4.0	1.5	2.0
1,3-Dichlorobenzene	U	1.0	ug/L	4	1	4.0	1.0	2.0
1,4-Dichlorobenzene	U	0.96	ug/L	4	1	4.0	0.96	2.0
1,2-Dichlorobenzene	U	0.60	ug/L	4	1	4.0	0.60	2.0
1,2-Dibromo-3-Chloropropane	U	2.0	ug/L	4	1	4.0	2.0	3.0
1,2,4-Trichlorobenzene	U	1.5	ug/L	4	1	4.0	1.5	2.0
Freon-113	U	1.2	ug/L	4	1	4.0	1.2	2.0
Cyclohexane	U	1.2	ug/L	4	1	4.0	1.2	2.0
Methyl acetate	U	2.1	ug/L	4	1	4.0	2.1	3.0
Methylcyclohexane	U	1.2	ug/L	4	1	4.0	1.2	2.0
Total Xylene	U	1.0	ug/L	4	3	12.	1.0	6.0
P-Bromofluorobenzene		96.7	%					
Toluene-d8		105.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		98.4	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-2
Client ID: 5-DPT22-40-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.44	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene		20.	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	I	0.60	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane		2.1	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene		11.	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane		16.	ug/L	1	1	1.0	0.20	0.50
Trichloroethene		19.	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-2
Client ID: 5-DPT22-40-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		101.	%					
Toluene-d8		109.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		97.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-1
Client ID: 5-DPT22-60-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-1
Client ID: 5-DPT22-60-06232011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		95.2	%					
Toluene-d8		106.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		97.0	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-16
Client ID: -SBRINSATE-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	I	0.40	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone		29.	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone		16.	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-16
Client ID: -SBRINSATE-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		93.7	%					
Toluene-d8		102.	%					
1,2-Dichloroethane-d4		97.2	%					
Dibromofluoromethane		94.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-18
Client ID: TB-04
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone		5.8	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	I	2.0	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-18
Client ID: TB-04
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		96.0	%					
Toluene-d8		106.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		97.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 93.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/Kgdrywt	1	10	11.	1.0	5.5
Chloromethane	U	1.5	ug/Kgdrywt	1	10	11.	1.5	5.5
Vinyl Chloride	U	0.96	ug/Kgdrywt	1	10	11.	0.96	5.5
Bromomethane	U	1.2	ug/Kgdrywt	1	10	11.	1.2	5.5
Chloroethane	U	1.4	ug/Kgdrywt	1	10	11.	1.4	5.5
Trichlorofluoromethane	U	1.0	ug/Kgdrywt	1	10	11.	1.0	5.5
1,1-Dichloroethene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Carbon Disulfide	IV	1.1	ug/Kgdrywt	1	5	5.5	0.86	2.8
Methylene Chloride	U	8.7	ug/Kgdrywt	1	25	28.	8.7	14.
Acetone	IV	9.7	ug/Kgdrywt	1	25	28.	5.6	14.
trans-1,2-Dichloroethene	U	0.78	ug/Kgdrywt	1	5	5.5	0.78	2.8
Methyl tert-butyl Ether	U	1.2	ug/Kgdrywt	1	5	5.5	1.2	2.8
1,1-Dichloroethane	U	1.9	ug/Kgdrywt	1	5	5.5	1.9	2.8
cis-1,2-Dichloroethene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Chloroform	U	0.38	ug/Kgdrywt	1	5	5.5	0.38	2.8
Carbon Tetrachloride	U	1.4	ug/Kgdrywt	1	5	5.5	1.4	2.8
1,1,1-Trichloroethane	U	0.46	ug/Kgdrywt	1	5	5.5	0.46	2.8
2-Butanone	U	6.5	ug/Kgdrywt	1	25	28.	6.5	14.
Benzene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
1,2-Dichloroethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
Trichloroethene	U	0.65	ug/Kgdrywt	1	5	5.5	0.65	2.8
1,2-Dichloropropane	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
Bromodichloromethane	U	0.66	ug/Kgdrywt	1	5	5.5	0.66	2.8
cis-1,3-Dichloropropene	U	0.79	ug/Kgdrywt	1	5	5.5	0.79	2.8
Toluene	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
4-Methyl-2-Pentanone	U	6.5	ug/Kgdrywt	1	25	28.	6.5	14.
Tetrachloroethene	I	2.1	ug/Kgdrywt	1	5	5.5	1.3	2.8
trans-1,3-Dichloropropene	U	0.95	ug/Kgdrywt	1	5	5.5	0.95	2.8
1,1,2-Trichloroethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
Dibromochloromethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
1,2-Dibromoethane	U	1.3	ug/Kgdrywt	1	5	5.5	1.3	2.8
2-Hexanone	U	5.3	ug/Kgdrywt	1	25	28.	5.3	14.
Chlorobenzene	U	0.56	ug/Kgdrywt	1	5	5.5	0.56	2.8
Ethylbenzene	U	0.72	ug/Kgdrywt	1	5	5.5	0.72	2.8
Styrene	U	0.56	ug/Kgdrywt	1	5	5.5	0.56	2.8

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 93.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.77	ug/Kgdrywt	1	5	5.5	0.77	2.8
Isopropylbenzene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
1,1,2,2-Tetrachloroethane	U	0.92	ug/Kgdrywt	1	5	5.5	0.92	2.8
1,3-Dichlorobenzene	U	0.68	ug/Kgdrywt	1	5	5.5	0.68	2.8
1,4-Dichlorobenzene	U	0.48	ug/Kgdrywt	1	5	5.5	0.48	2.8
1,2-Dichlorobenzene	U	0.86	ug/Kgdrywt	1	5	5.5	0.86	2.8
1,2-Dibromo-3-Chloropropane	U	1.6	ug/Kgdrywt	1	5	5.5	1.6	2.8
1,2,4-Trichlorobenzene	U	0.87	ug/Kgdrywt	1	5	5.5	0.87	2.8
Freon-113	U	0.99	ug/Kgdrywt	1	5	5.5	0.99	2.8
Cyclohexane	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
Methyl acetate	U	3.0	ug/Kgdrywt	1	5	5.5	3.0	3.3
Methylcyclohexane	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Total Xylene	U	1.4	ug/Kgdrywt	1	15	16.	1.4	8.2
p-Bromofluorobenzene		51.8	%					
Toluene-D8		74.6	%					
1,2-Dichloroethane-D4		95.9	%					
Dibromofluoromethane		88.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-5
Client ID: 45-SB05-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 72.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
Chloromethane	U	1.7	ug/Kgdrywt	1	10	12.	1.7	6.0
Vinyl Chloride	U	1.0	ug/Kgdrywt	1	10	12.	1.0	6.0
Bromomethane	U	1.3	ug/Kgdrywt	1	10	12.	1.3	6.0
Chloroethane	U	1.6	ug/Kgdrywt	1	10	12.	1.6	6.0
Trichlorofluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
1,1-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Carbon Disulfide	IV	1.5	ug/Kgdrywt	1	5	6.0	0.94	3.0
Methylene Chloride	U	9.5	ug/Kgdrywt	1	25	30.	9.5	15.
Acetone	V	33.	ug/Kgdrywt	1	25	30.	6.1	15.
trans-1,2-Dichloroethene	U	0.85	ug/Kgdrywt	1	5	6.0	0.85	3.0
Methyl tert-butyl Ether	U	1.3	ug/Kgdrywt	1	5	6.0	1.3	3.0
1,1-Dichloroethane	U	2.0	ug/Kgdrywt	1	5	6.0	2.0	3.0
cis-1,2-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Chloroform	U	0.42	ug/Kgdrywt	1	5	6.0	0.42	3.0
Carbon Tetrachloride	U	1.6	ug/Kgdrywt	1	5	6.0	1.6	3.0
1,1,1-Trichloroethane	U	0.50	ug/Kgdrywt	1	5	6.0	0.50	3.0
2-Butanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Benzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,2-Dichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Trichloroethene	U	0.71	ug/Kgdrywt	1	5	6.0	0.71	3.0
1,2-Dichloropropane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Bromodichloromethane	U	0.72	ug/Kgdrywt	1	5	6.0	0.72	3.0
cis-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	6.0	0.86	3.0
Toluene	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
4-Methyl-2-Pentanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Tetrachloroethene	U	1.4	ug/Kgdrywt	1	5	6.0	1.4	3.0
trans-1,3-Dichloropropene	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,1,2-Trichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Dibromochloromethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
1,2-Dibromoethane	U	1.4	ug/Kgdrywt	1	5	6.0	1.4	3.0
2-Hexanone	U	5.8	ug/Kgdrywt	1	25	30.	5.8	15.
Chlorobenzene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0
Ethylbenzene	U	0.78	ug/Kgdrywt	1	5	6.0	0.78	3.0
Styrene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-5
Client ID: 45-SB05-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 72.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.84	ug/Kgdrywt	1	5	6.0	0.84	3.0
Isopropylbenzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,3-Dichlorobenzene	U	0.74	ug/Kgdrywt	1	5	6.0	0.74	3.0
1,4-Dichlorobenzene	U	0.53	ug/Kgdrywt	1	5	6.0	0.53	3.0
1,2-Dichlorobenzene	U	0.94	ug/Kgdrywt	1	5	6.0	0.94	3.0
1,2-Dibromo-3-Chloropropane	U	1.8	ug/Kgdrywt	1	5	6.0	1.8	3.0
1,2,4-Trichlorobenzene	U	0.95	ug/Kgdrywt	1	5	6.0	0.95	3.0
Freon-113	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Cyclohexane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Methyl acetate	U	3.2	ug/Kgdrywt	1	5	6.0	3.2	3.6
Methylcyclohexane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Total Xylene	U	1.6	ug/Kgdrywt	1	15	18.	1.6	9.0
p-Bromofluorobenzene		80.8	%					
Toluene-D8		94.1	%					
1,2-Dichloroethane-D4		99.2	%					
Dibromofluoromethane		96.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 86.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.92	ug/Kgdrywt	1	10	10.	0.92	5.0
Chloromethane	U	1.4	ug/Kgdrywt	1	10	10.	1.4	5.0
Vinyl Chloride	U	0.87	ug/Kgdrywt	1	10	10.	0.87	5.0
Bromomethane	U	1.1	ug/Kgdrywt	1	10	10.	1.1	5.0
Chloroethane	U	1.3	ug/Kgdrywt	1	10	10.	1.3	5.0
Trichlorofluoromethane	U	0.91	ug/Kgdrywt	1	10	10.	0.91	5.0
1,1-Dichloroethene	U	0.93	ug/Kgdrywt	1	5	5.0	0.93	2.5
Carbon Disulfide	IV	1.3	ug/Kgdrywt	1	5	5.0	0.78	2.5
Methylene Chloride	U	7.9	ug/Kgdrywt	1	25	25.	7.9	12.
Acetone	IV	14.	ug/Kgdrywt	1	25	25.	5.1	12.
trans-1,2-Dichloroethene	U	0.71	ug/Kgdrywt	1	5	5.0	0.71	2.5
Methyl tert-butyl Ether	U	1.1	ug/Kgdrywt	1	5	5.0	1.1	2.5
1,1-Dichloroethane	U	1.7	ug/Kgdrywt	1	5	5.0	1.7	2.5
cis-1,2-Dichloroethene	U	0.91	ug/Kgdrywt	1	5	5.0	0.91	2.5
Chloroform	U	0.35	ug/Kgdrywt	1	5	5.0	0.35	2.5
Carbon Tetrachloride	U	1.3	ug/Kgdrywt	1	5	5.0	1.3	2.5
1,1,1-Trichloroethane	U	0.42	ug/Kgdrywt	1	5	5.0	0.42	2.5
2-Butanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Benzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,2-Dichloroethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
Trichloroethene	U	0.59	ug/Kgdrywt	1	5	5.0	0.59	2.5
1,2-Dichloropropane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Bromodichloromethane	U	0.60	ug/Kgdrywt	1	5	5.0	0.60	2.5
cis-1,3-Dichloropropene	U	0.72	ug/Kgdrywt	1	5	5.0	0.72	2.5
Toluene	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
4-Methyl-2-Pentanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Tetrachloroethene	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
trans-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	5.0	0.86	2.5
1,1,2-Trichloroethane	U	0.97	ug/Kgdrywt	1	5	5.0	0.97	2.5
Dibromochloromethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
1,2-Dibromoethane	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
2-Hexanone	U	4.8	ug/Kgdrywt	1	25	25.	4.8	12.
Chlorobenzene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5
Ethylbenzene	U	0.65	ug/Kgdrywt	1	5	5.0	0.65	2.5
Styrene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 86.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.70	ug/Kgdrywt	1	5	5.0	0.70	2.5
Isopropylbenzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,1,2,2-Tetrachloroethane	U	0.84	ug/Kgdrywt	1	5	5.0	0.84	2.5
1,3-Dichlorobenzene	U	0.62	ug/Kgdrywt	1	5	5.0	0.62	2.5
1,4-Dichlorobenzene	U	0.44	ug/Kgdrywt	1	5	5.0	0.44	2.5
1,2-Dichlorobenzene	U	0.78	ug/Kgdrywt	1	5	5.0	0.78	2.5
1,2-Dibromo-3-Chloropropane	U	1.5	ug/Kgdrywt	1	5	5.0	1.5	2.5
1,2,4-Trichlorobenzene	U	0.79	ug/Kgdrywt	1	5	5.0	0.79	2.5
Freon-113	U	0.90	ug/Kgdrywt	1	5	5.0	0.90	2.5
Cyclohexane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Methyl acetate	U	2.7	ug/Kgdrywt	1	5	5.0	2.7	3.0
Methylcyclohexane	U	0.96	ug/Kgdrywt	1	5	5.0	0.96	2.5
Total Xylene	U	1.3	ug/Kgdrywt	1	15	15.	1.3	7.5
p-Bromofluorobenzene		82.3	%					
Toluene-D8		91.4	%					
1,2-Dichloroethane-D4		93.3	%					
Dibromofluoromethane		90.5	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 82.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/Kgdrywt	1	10	11.	1.0	5.5
Chloromethane	U	1.5	ug/Kgdrywt	1	10	11.	1.5	5.5
Vinyl Chloride	U	0.96	ug/Kgdrywt	1	10	11.	0.96	5.5
Bromomethane	U	1.2	ug/Kgdrywt	1	10	11.	1.2	5.5
Chloroethane	U	1.4	ug/Kgdrywt	1	10	11.	1.4	5.5
Trichlorofluoromethane	U	1.0	ug/Kgdrywt	1	10	11.	1.0	5.5
1,1-Dichloroethene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Carbon Disulfide	IV	1.2	ug/Kgdrywt	1	5	5.5	0.86	2.8
Methylene Chloride	U	8.7	ug/Kgdrywt	1	25	28.	8.7	14.
Acetone	IV	10.	ug/Kgdrywt	1	25	28.	5.6	14.
trans-1,2-Dichloroethene	U	0.78	ug/Kgdrywt	1	5	5.5	0.78	2.8
Methyl tert-butyl Ether	U	1.2	ug/Kgdrywt	1	5	5.5	1.2	2.8
1,1-Dichloroethane	U	1.9	ug/Kgdrywt	1	5	5.5	1.9	2.8
cis-1,2-Dichloroethene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Chloroform	U	0.38	ug/Kgdrywt	1	5	5.5	0.38	2.8
Carbon Tetrachloride	U	1.4	ug/Kgdrywt	1	5	5.5	1.4	2.8
1,1,1-Trichloroethane	U	0.46	ug/Kgdrywt	1	5	5.5	0.46	2.8
2-Butanone	U	6.5	ug/Kgdrywt	1	25	28.	6.5	14.
Benzene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
1,2-Dichloroethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
Trichloroethene	U	0.65	ug/Kgdrywt	1	5	5.5	0.65	2.8
1,2-Dichloropropane	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
Bromodichloromethane	U	0.66	ug/Kgdrywt	1	5	5.5	0.66	2.8
cis-1,3-Dichloropropene	U	0.79	ug/Kgdrywt	1	5	5.5	0.79	2.8
Toluene	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
4-Methyl-2-Pentanone	U	6.5	ug/Kgdrywt	1	25	28.	6.5	14.
Tetrachloroethene	U	1.3	ug/Kgdrywt	1	5	5.5	1.3	2.8
trans-1,3-Dichloropropene	U	0.95	ug/Kgdrywt	1	5	5.5	0.95	2.8
1,1,2-Trichloroethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
Dibromochloromethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
1,2-Dibromoethane	U	1.3	ug/Kgdrywt	1	5	5.5	1.3	2.8
2-Hexanone	U	5.3	ug/Kgdrywt	1	25	28.	5.3	14.
Chlorobenzene	U	0.56	ug/Kgdrywt	1	5	5.5	0.56	2.8
Ethylbenzene	U	0.72	ug/Kgdrywt	1	5	5.5	0.72	2.8
Styrene	U	0.56	ug/Kgdrywt	1	5	5.5	0.56	2.8

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 82.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.77	ug/Kgdrywt	1	5	5.5	0.77	2.8
Isopropylbenzene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
1,1,2,2-Tetrachloroethane	U	0.92	ug/Kgdrywt	1	5	5.5	0.92	2.8
1,3-Dichlorobenzene	U	0.68	ug/Kgdrywt	1	5	5.5	0.68	2.8
1,4-Dichlorobenzene	U	0.48	ug/Kgdrywt	1	5	5.5	0.48	2.8
1,2-Dichlorobenzene	U	0.86	ug/Kgdrywt	1	5	5.5	0.86	2.8
1,2-Dibromo-3-Chloropropane	U	1.6	ug/Kgdrywt	1	5	5.5	1.6	2.8
1,2,4-Trichlorobenzene	U	0.87	ug/Kgdrywt	1	5	5.5	0.87	2.8
Freon-113	U	0.99	ug/Kgdrywt	1	5	5.5	0.99	2.8
Cyclohexane	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
Methyl acetate	U	3.0	ug/Kgdrywt	1	5	5.5	3.0	3.3
Methylcyclohexane	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Total Xylene	U	1.4	ug/Kgdrywt	1	15	16.	1.4	8.2
p-Bromofluorobenzene		73.5	%					
Toluene-D8		88.5	%					
1,2-Dichloroethane-D4		95.2	%					
Dibromofluoromethane		94.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-8
Client ID: 45-SB08-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 30-JUN-11
Extracted By: JSS
Extraction Method: SW846 5035
Lab Prep Batch: WG93495

Analysis Date: 30-JUN-11
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 95.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.88	ug/Kgdrywt	1	10	9.6	0.88	4.8
Chloromethane	U	1.3	ug/Kgdrywt	1	10	9.6	1.3	4.8
Vinyl Chloride	U	0.84	ug/Kgdrywt	1	10	9.6	0.84	4.8
Bromomethane	U	1.0	ug/Kgdrywt	1	10	9.6	1.0	4.8
Chloroethane	U	1.2	ug/Kgdrywt	1	10	9.6	1.2	4.8
Trichlorofluoromethane	U	0.87	ug/Kgdrywt	1	10	9.6	0.87	4.8
1,1-Dichloroethene	U	0.89	ug/Kgdrywt	1	5	4.8	0.89	2.4
Carbon Disulfide	I	1.2	ug/Kgdrywt	1	5	4.8	0.75	2.4
Methylene Chloride	U	7.6	ug/Kgdrywt	1	25	24.	7.6	12.
Acetone	I	9.1	ug/Kgdrywt	1	25	24.	4.9	12.
trans-1,2-Dichloroethene	U	0.68	ug/Kgdrywt	1	5	4.8	0.68	2.4
Methyl tert-butyl Ether	U	1.0	ug/Kgdrywt	1	5	4.8	1.0	2.4
1,1-Dichloroethane	U	1.6	ug/Kgdrywt	1	5	4.8	1.6	2.4
cis-1,2-Dichloroethene	U	0.87	ug/Kgdrywt	1	5	4.8	0.87	2.4
Chloroform	U	0.34	ug/Kgdrywt	1	5	4.8	0.34	2.4
Carbon Tetrachloride	U	1.2	ug/Kgdrywt	1	5	4.8	1.2	2.4
1,1,1-Trichloroethane	U	0.40	ug/Kgdrywt	1	5	4.8	0.40	2.4
2-Butanone	U	5.7	ug/Kgdrywt	1	25	24.	5.7	12.
Benzene	U	0.88	ug/Kgdrywt	1	5	4.8	0.88	2.4
1,2-Dichloroethane	U	0.96	ug/Kgdrywt	1	5	4.8	0.96	2.4
Trichloroethene	U	0.57	ug/Kgdrywt	1	5	4.8	0.57	2.4
1,2-Dichloropropane	U	1.3	ug/Kgdrywt	1	5	4.8	1.3	2.4
Bromodichloromethane	U	0.58	ug/Kgdrywt	1	5	4.8	0.58	2.4
cis-1,3-Dichloropropene	U	0.69	ug/Kgdrywt	1	5	4.8	0.69	2.4
Toluene	U	1.3	ug/Kgdrywt	1	5	4.8	1.3	2.4
4-Methyl-2-Pentanone	U	5.7	ug/Kgdrywt	1	25	24.	5.7	12.
Tetrachloroethene	U	1.2	ug/Kgdrywt	1	5	4.8	1.2	2.4
trans-1,3-Dichloropropene	U	0.82	ug/Kgdrywt	1	5	4.8	0.82	2.4
1,1,2-Trichloroethane	U	0.93	ug/Kgdrywt	1	5	4.8	0.93	2.4
Dibromochloromethane	U	0.96	ug/Kgdrywt	1	5	4.8	0.96	2.4
1,2-Dibromoethane	U	1.2	ug/Kgdrywt	1	5	4.8	1.2	2.4
2-Hexanone	U	4.6	ug/Kgdrywt	1	25	24.	4.6	12.
Chlorobenzene	U	0.49	ug/Kgdrywt	1	5	4.8	0.49	2.4
Ethylbenzene	U	0.62	ug/Kgdrywt	1	5	4.8	0.62	2.4
Styrene	U	0.49	ug/Kgdrywt	1	5	4.8	0.49	2.4

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-8
Client ID: 45-SB08-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 30-JUN-11
Extracted By: JSS
Extraction Method: SW846 5035
Lab Prep Batch: WG93495

Analysis Date: 30-JUN-11
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 95.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.67	ug/Kgdrywt	1	5	4.8	0.67	2.4
Isopropylbenzene	U	0.88	ug/Kgdrywt	1	5	4.8	0.88	2.4
1,1,2,2-Tetrachloroethane	U	0.81	ug/Kgdrywt	1	5	4.8	0.81	2.4
1,3-Dichlorobenzene	U	0.60	ug/Kgdrywt	1	5	4.8	0.60	2.4
1,4-Dichlorobenzene	U	0.42	ug/Kgdrywt	1	5	4.8	0.42	2.4
1,2-Dichlorobenzene	U	0.75	ug/Kgdrywt	1	5	4.8	0.75	2.4
1,2-Dibromo-3-Chloropropane	U	1.4	ug/Kgdrywt	1	5	4.8	1.4	2.4
1,2,4-Trichlorobenzene	U	0.76	ug/Kgdrywt	1	5	4.8	0.76	2.4
Freon-113	U	0.86	ug/Kgdrywt	1	5	4.8	0.86	2.4
Cyclohexane	U	1.3	ug/Kgdrywt	1	5	4.8	1.3	2.4
Methyl acetate	U	2.6	ug/Kgdrywt	1	5	4.8	2.6	2.9
Methylcyclohexane	U	0.92	ug/Kgdrywt	1	5	4.8	0.92	2.4
Total Xylene	U	1.2	ug/Kgdrywt	1	15	14.	1.2	7.2
p-Bromofluorobenzene		66.3	%					
Toluene-D8		83.5	%					
1,2-Dichloroethane-D4		90.6	%					
Dibromofluoromethane		87.4	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 86.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/Kgdrywt	1	10	11.	1.0	5.5
Chloromethane	U	1.5	ug/Kgdrywt	1	10	11.	1.5	5.5
Vinyl Chloride	U	0.96	ug/Kgdrywt	1	10	11.	0.96	5.5
Bromomethane	U	1.2	ug/Kgdrywt	1	10	11.	1.2	5.5
Chloroethane	U	1.4	ug/Kgdrywt	1	10	11.	1.4	5.5
Trichlorofluoromethane	U	1.0	ug/Kgdrywt	1	10	11.	1.0	5.5
1,1-Dichloroethene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Carbon Disulfide	IV	1.1	ug/Kgdrywt	1	5	5.5	0.86	2.8
Methylene Chloride	U	8.7	ug/Kgdrywt	1	25	28.	8.7	14.
Acetone	IV	9.9	ug/Kgdrywt	1	25	28.	5.6	14.
trans-1,2-Dichloroethene	U	0.78	ug/Kgdrywt	1	5	5.5	0.78	2.8
Methyl tert-butyl Ether	U	1.2	ug/Kgdrywt	1	5	5.5	1.2	2.8
1,1-Dichloroethane	U	1.9	ug/Kgdrywt	1	5	5.5	1.9	2.8
cis-1,2-Dichloroethene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Chloroform	U	0.38	ug/Kgdrywt	1	5	5.5	0.38	2.8
Carbon Tetrachloride	U	1.4	ug/Kgdrywt	1	5	5.5	1.4	2.8
1,1,1-Trichloroethane	U	0.46	ug/Kgdrywt	1	5	5.5	0.46	2.8
2-Butanone	U	6.5	ug/Kgdrywt	1	25	28.	6.5	14.
Benzene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
1,2-Dichloroethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
Trichloroethene	U	0.65	ug/Kgdrywt	1	5	5.5	0.65	2.8
1,2-Dichloropropane	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
Bromodichloromethane	U	0.66	ug/Kgdrywt	1	5	5.5	0.66	2.8
cis-1,3-Dichloropropene	U	0.79	ug/Kgdrywt	1	5	5.5	0.79	2.8
Toluene	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
4-Methyl-2-Pentanone	U	6.5	ug/Kgdrywt	1	25	28.	6.5	14.
Tetrachloroethene	U	1.3	ug/Kgdrywt	1	5	5.5	1.3	2.8
trans-1,3-Dichloropropene	U	0.95	ug/Kgdrywt	1	5	5.5	0.95	2.8
1,1,2-Trichloroethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
Dibromochloromethane	U	1.1	ug/Kgdrywt	1	5	5.5	1.1	2.8
1,2-Dibromoethane	U	1.3	ug/Kgdrywt	1	5	5.5	1.3	2.8
2-Hexanone	U	5.3	ug/Kgdrywt	1	25	28.	5.3	14.
Chlorobenzene	U	0.56	ug/Kgdrywt	1	5	5.5	0.56	2.8
Ethylbenzene	U	0.72	ug/Kgdrywt	1	5	5.5	0.72	2.8
Styrene	U	0.56	ug/Kgdrywt	1	5	5.5	0.56	2.8

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 86.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.77	ug/Kgdrywt	1	5	5.5	0.77	2.8
Isopropylbenzene	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
1,1,2,2-Tetrachloroethane	U	0.92	ug/Kgdrywt	1	5	5.5	0.92	2.8
1,3-Dichlorobenzene	U	0.68	ug/Kgdrywt	1	5	5.5	0.68	2.8
1,4-Dichlorobenzene	U	0.48	ug/Kgdrywt	1	5	5.5	0.48	2.8
1,2-Dichlorobenzene	U	0.86	ug/Kgdrywt	1	5	5.5	0.86	2.8
1,2-Dibromo-3-Chloropropane	U	1.6	ug/Kgdrywt	1	5	5.5	1.6	2.8
1,2,4-Trichlorobenzene	U	0.87	ug/Kgdrywt	1	5	5.5	0.87	2.8
Freon-113	U	0.99	ug/Kgdrywt	1	5	5.5	0.99	2.8
Cyclohexane	U	1.5	ug/Kgdrywt	1	5	5.5	1.5	2.8
Methyl acetate	U	3.0	ug/Kgdrywt	1	5	5.5	3.0	3.3
Methylcyclohexane	U	1.0	ug/Kgdrywt	1	5	5.5	1.0	2.8
Total Xylene	U	1.4	ug/Kgdrywt	1	15	16.	1.4	8.2
p-Bromofluorobenzene		79.0	%					
Toluene-D8		86.4	%					
1,2-Dichloroethane-D4		96.1	%					
Dibromofluoromethane		91.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-10
Client ID: 45-SB10-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 82.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
Chloromethane	U	1.7	ug/Kgdrywt	1	10	12.	1.7	6.0
Vinyl Chloride	U	1.0	ug/Kgdrywt	1	10	12.	1.0	6.0
Bromomethane	U	1.3	ug/Kgdrywt	1	10	12.	1.3	6.0
Chloroethane	U	1.6	ug/Kgdrywt	1	10	12.	1.6	6.0
Trichlorofluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
1,1-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Carbon Disulfide	IV	1.2	ug/Kgdrywt	1	5	6.0	0.94	3.0
Methylene Chloride	U	9.5	ug/Kgdrywt	1	25	30.	9.5	15.
Acetone	IV	12.	ug/Kgdrywt	1	25	30.	6.1	15.
trans-1,2-Dichloroethene	U	0.85	ug/Kgdrywt	1	5	6.0	0.85	3.0
Methyl tert-butyl Ether	U	1.3	ug/Kgdrywt	1	5	6.0	1.3	3.0
1,1-Dichloroethane	U	2.0	ug/Kgdrywt	1	5	6.0	2.0	3.0
cis-1,2-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Chloroform	U	0.42	ug/Kgdrywt	1	5	6.0	0.42	3.0
Carbon Tetrachloride	U	1.6	ug/Kgdrywt	1	5	6.0	1.6	3.0
1,1,1-Trichloroethane	U	0.50	ug/Kgdrywt	1	5	6.0	0.50	3.0
2-Butanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Benzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,2-Dichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Trichloroethene	U	0.71	ug/Kgdrywt	1	5	6.0	0.71	3.0
1,2-Dichloropropane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Bromodichloromethane	U	0.72	ug/Kgdrywt	1	5	6.0	0.72	3.0
cis-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	6.0	0.86	3.0
Toluene	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
4-Methyl-2-Pentanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Tetrachloroethene	U	1.4	ug/Kgdrywt	1	5	6.0	1.4	3.0
trans-1,3-Dichloropropene	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,1,2-Trichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Dibromochloromethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
1,2-Dibromoethane	U	1.4	ug/Kgdrywt	1	5	6.0	1.4	3.0
2-Hexanone	U	5.8	ug/Kgdrywt	1	25	30.	5.8	15.
Chlorobenzene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0
Ethylbenzene	U	0.78	ug/Kgdrywt	1	5	6.0	0.78	3.0
Styrene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-10
Client ID: 45-SB10-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 82.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.84	ug/Kgdrywt	1	5	6.0	0.84	3.0
Isopropylbenzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,3-Dichlorobenzene	U	0.74	ug/Kgdrywt	1	5	6.0	0.74	3.0
1,4-Dichlorobenzene	U	0.53	ug/Kgdrywt	1	5	6.0	0.53	3.0
1,2-Dichlorobenzene	U	0.94	ug/Kgdrywt	1	5	6.0	0.94	3.0
1,2-Dibromo-3-Chloropropane	U	1.8	ug/Kgdrywt	1	5	6.0	1.8	3.0
1,2,4-Trichlorobenzene	U	0.95	ug/Kgdrywt	1	5	6.0	0.95	3.0
Freon-113	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Cyclohexane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Methyl acetate	U	3.2	ug/Kgdrywt	1	5	6.0	3.2	3.6
Methylcyclohexane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Total Xylene	U	1.6	ug/Kgdrywt	1	15	18.	1.6	9.0
p-Bromofluorobenzene		76.0	%					
Toluene-D8		87.1	%					
1,2-Dichloroethane-D4		96.8	%					
Dibromofluoromethane		91.5	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 83.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
Chloromethane	U	1.7	ug/Kgdrywt	1	10	12.	1.7	6.0
Vinyl Chloride	U	1.0	ug/Kgdrywt	1	10	12.	1.0	6.0
Bromomethane	U	1.3	ug/Kgdrywt	1	10	12.	1.3	6.0
Chloroethane	U	1.6	ug/Kgdrywt	1	10	12.	1.6	6.0
Trichlorofluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
1,1-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Carbon Disulfide	IV	1.4	ug/Kgdrywt	1	5	6.0	0.94	3.0
Methylene Chloride	U	9.5	ug/Kgdrywt	1	25	30.	9.5	15.
Acetone	IV	12.	ug/Kgdrywt	1	25	30.	6.1	15.
trans-1,2-Dichloroethene	U	0.85	ug/Kgdrywt	1	5	6.0	0.85	3.0
Methyl tert-butyl Ether	U	1.3	ug/Kgdrywt	1	5	6.0	1.3	3.0
1,1-Dichloroethane	U	2.0	ug/Kgdrywt	1	5	6.0	2.0	3.0
cis-1,2-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Chloroform	U	0.42	ug/Kgdrywt	1	5	6.0	0.42	3.0
Carbon Tetrachloride	U	1.6	ug/Kgdrywt	1	5	6.0	1.6	3.0
1,1,1-Trichloroethane	U	0.50	ug/Kgdrywt	1	5	6.0	0.50	3.0
2-Butanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Benzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,2-Dichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Trichloroethene	U	0.71	ug/Kgdrywt	1	5	6.0	0.71	3.0
1,2-Dichloropropane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Bromodichloromethane	U	0.72	ug/Kgdrywt	1	5	6.0	0.72	3.0
cis-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	6.0	0.86	3.0
Toluene	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
4-Methyl-2-Pentanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Tetrachloroethene		7.2	ug/Kgdrywt	1	5	6.0	1.4	3.0
trans-1,3-Dichloropropene	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,1,2-Trichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Dibromochloromethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
1,2-Dibromoethane	U	1.4	ug/Kgdrywt	1	5	6.0	1.4	3.0
2-Hexanone	U	5.8	ug/Kgdrywt	1	25	30.	5.8	15.
Chlorobenzene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0
Ethylbenzene	U	0.78	ug/Kgdrywt	1	5	6.0	0.78	3.0
Styrene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 83.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.84	ug/Kgdrywt	1	5	6.0	0.84	3.0
Isopropylbenzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,3-Dichlorobenzene	U	0.74	ug/Kgdrywt	1	5	6.0	0.74	3.0
1,4-Dichlorobenzene	U	0.53	ug/Kgdrywt	1	5	6.0	0.53	3.0
1,2-Dichlorobenzene	U	0.94	ug/Kgdrywt	1	5	6.0	0.94	3.0
1,2-Dibromo-3-Chloropropane	U	1.8	ug/Kgdrywt	1	5	6.0	1.8	3.0
1,2,4-Trichlorobenzene	U	0.95	ug/Kgdrywt	1	5	6.0	0.95	3.0
Freon-113	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Cyclohexane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Methyl acetate	U	3.2	ug/Kgdrywt	1	5	6.0	3.2	3.6
Methylcyclohexane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Total Xylene	U	1.6	ug/Kgdrywt	1	15	18.	1.6	9.0
p-Bromofluorobenzene		65.6	%					
Toluene-D8		81.5	%					
1,2-Dichloroethane-D4		96.2	%					
Dibromofluoromethane		89.5	%					

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-12
Client ID: 45-SB12-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 93.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.91	ug/Kgdrywt	1	10	9.9	0.91	5.0
Chloromethane	U	1.4	ug/Kgdrywt	1	10	9.9	1.4	5.0
Vinyl Chloride	U	0.86	ug/Kgdrywt	1	10	9.9	0.86	5.0
Bromomethane	U	1.1	ug/Kgdrywt	1	10	9.9	1.1	5.0
Chloroethane	U	1.3	ug/Kgdrywt	1	10	9.9	1.3	5.0
Trichlorofluoromethane	U	0.90	ug/Kgdrywt	1	10	9.9	0.90	5.0
1,1-Dichloroethene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
Carbon Disulfide	IV	1.1	ug/Kgdrywt	1	5	5.0	0.77	2.5
Methylene Chloride	U	7.8	ug/Kgdrywt	1	25	25.	7.8	12.
Acetone	IV	8.1	ug/Kgdrywt	1	25	25.	5.0	12.
trans-1,2-Dichloroethene	U	0.70	ug/Kgdrywt	1	5	5.0	0.70	2.5
Methyl tert-butyl Ether	U	1.1	ug/Kgdrywt	1	5	5.0	1.1	2.5
1,1-Dichloroethane	U	1.7	ug/Kgdrywt	1	5	5.0	1.7	2.5
cis-1,2-Dichloroethene	U	0.90	ug/Kgdrywt	1	5	5.0	0.90	2.5
Chloroform	U	0.35	ug/Kgdrywt	1	5	5.0	0.35	2.5
Carbon Tetrachloride	U	1.3	ug/Kgdrywt	1	5	5.0	1.3	2.5
1,1,1-Trichloroethane	U	0.42	ug/Kgdrywt	1	5	5.0	0.42	2.5
2-Butanone	U	5.8	ug/Kgdrywt	1	25	25.	5.8	12.
Benzene	U	0.91	ug/Kgdrywt	1	5	5.0	0.91	2.5
1,2-Dichloroethane	U	0.99	ug/Kgdrywt	1	5	5.0	0.99	2.5
Trichloroethene	U	0.58	ug/Kgdrywt	1	5	5.0	0.58	2.5
1,2-Dichloropropane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Bromodichloromethane	U	0.59	ug/Kgdrywt	1	5	5.0	0.59	2.5
cis-1,3-Dichloropropene	U	0.71	ug/Kgdrywt	1	5	5.0	0.71	2.5
Toluene	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
4-Methyl-2-Pentanone	U	5.8	ug/Kgdrywt	1	25	25.	5.8	12.
Tetrachloroethene	I	2.6	ug/Kgdrywt	1	5	5.0	1.2	2.5
trans-1,3-Dichloropropene	U	0.85	ug/Kgdrywt	1	5	5.0	0.85	2.5
1,1,2-Trichloroethane	U	0.96	ug/Kgdrywt	1	5	5.0	0.96	2.5
Dibromochloromethane	U	0.99	ug/Kgdrywt	1	5	5.0	0.99	2.5
1,2-Dibromoethane	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
2-Hexanone	U	4.8	ug/Kgdrywt	1	25	25.	4.8	12.
Chlorobenzene	U	0.50	ug/Kgdrywt	1	5	5.0	0.50	2.5
Ethylbenzene	U	0.64	ug/Kgdrywt	1	5	5.0	0.64	2.5
Styrene	U	0.50	ug/Kgdrywt	1	5	5.0	0.50	2.5

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-12
Client ID: 45-SB12-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 93.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.69	ug/Kgdrywt	1	5	5.0	0.69	2.5
Isopropylbenzene	U	0.91	ug/Kgdrywt	1	5	5.0	0.91	2.5
1,1,2,2-Tetrachloroethane	U	0.83	ug/Kgdrywt	1	5	5.0	0.83	2.5
1,3-Dichlorobenzene	U	0.61	ug/Kgdrywt	1	5	5.0	0.61	2.5
1,4-Dichlorobenzene	U	0.44	ug/Kgdrywt	1	5	5.0	0.44	2.5
1,2-Dichlorobenzene	U	0.77	ug/Kgdrywt	1	5	5.0	0.77	2.5
1,2-Dibromo-3-Chloropropane	U	1.5	ug/Kgdrywt	1	5	5.0	1.5	2.5
1,2,4-Trichlorobenzene	U	0.78	ug/Kgdrywt	1	5	5.0	0.78	2.5
Freon-113	U	0.89	ug/Kgdrywt	1	5	5.0	0.89	2.5
Cyclohexane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Methyl acetate	U	2.7	ug/Kgdrywt	1	5	5.0	2.7	3.0
Methylcyclohexane	U	0.95	ug/Kgdrywt	1	5	5.0	0.95	2.5
Total Xylene	U	1.3	ug/Kgdrywt	1	15	15.	1.3	7.4
p-Bromofluorobenzene		47.2	%					
Toluene-D8		70.6	%					
1,2-Dichloroethane-D4		91.8	%					
Dibromofluoromethane		85.4	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 80.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
Chloromethane	U	1.7	ug/Kgdrywt	1	10	12.	1.7	6.0
Vinyl Chloride	U	1.0	ug/Kgdrywt	1	10	12.	1.0	6.0
Bromomethane	U	1.3	ug/Kgdrywt	1	10	12.	1.3	6.0
Chloroethane	U	1.6	ug/Kgdrywt	1	10	12.	1.6	6.0
Trichlorofluoromethane	U	1.1	ug/Kgdrywt	1	10	12.	1.1	6.0
1,1-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Carbon Disulfide	IV	1.2	ug/Kgdrywt	1	5	6.0	0.94	3.0
Methylene Chloride	U	9.5	ug/Kgdrywt	1	25	30.	9.5	15.
Acetone	IV	9.6	ug/Kgdrywt	1	25	30.	6.1	15.
trans-1,2-Dichloroethene	U	0.85	ug/Kgdrywt	1	5	6.0	0.85	3.0
Methyl tert-butyl Ether	U	1.3	ug/Kgdrywt	1	5	6.0	1.3	3.0
1,1-Dichloroethane	U	2.0	ug/Kgdrywt	1	5	6.0	2.0	3.0
cis-1,2-Dichloroethene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Chloroform	U	0.42	ug/Kgdrywt	1	5	6.0	0.42	3.0
Carbon Tetrachloride	U	1.6	ug/Kgdrywt	1	5	6.0	1.6	3.0
1,1,1-Trichloroethane	U	0.50	ug/Kgdrywt	1	5	6.0	0.50	3.0
2-Butanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Benzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,2-Dichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Trichloroethene	U	0.71	ug/Kgdrywt	1	5	6.0	0.71	3.0
1,2-Dichloropropane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Bromodichloromethane	U	0.72	ug/Kgdrywt	1	5	6.0	0.72	3.0
cis-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	6.0	0.86	3.0
Toluene	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
4-Methyl-2-Pentanone	U	7.1	ug/Kgdrywt	1	25	30.	7.1	15.
Tetrachloroethene	I	3.5	ug/Kgdrywt	1	5	6.0	1.4	3.0
trans-1,3-Dichloropropene	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,1,2-Trichloroethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Dibromochloromethane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
1,2-Dibromoethane	U	1.4	ug/Kgdrywt	1	5	6.0	1.4	3.0
2-Hexanone	U	5.8	ug/Kgdrywt	1	25	30.	5.8	15.
Chlorobenzene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0
Ethylbenzene	U	0.78	ug/Kgdrywt	1	5	6.0	0.78	3.0
Styrene	U	0.61	ug/Kgdrywt	1	5	6.0	0.61	3.0

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 80.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.84	ug/Kgdrywt	1	5	6.0	0.84	3.0
Isopropylbenzene	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
1,1,2,2-Tetrachloroethane	U	1.0	ug/Kgdrywt	1	5	6.0	1.0	3.0
1,3-Dichlorobenzene	U	0.74	ug/Kgdrywt	1	5	6.0	0.74	3.0
1,4-Dichlorobenzene	U	0.53	ug/Kgdrywt	1	5	6.0	0.53	3.0
1,2-Dichlorobenzene	U	0.94	ug/Kgdrywt	1	5	6.0	0.94	3.0
1,2-Dibromo-3-Chloropropane	U	1.8	ug/Kgdrywt	1	5	6.0	1.8	3.0
1,2,4-Trichlorobenzene	U	0.95	ug/Kgdrywt	1	5	6.0	0.95	3.0
Freon-113	U	1.1	ug/Kgdrywt	1	5	6.0	1.1	3.0
Cyclohexane	U	1.7	ug/Kgdrywt	1	5	6.0	1.7	3.0
Methyl acetate	U	3.2	ug/Kgdrywt	1	5	6.0	3.2	3.6
Methylcyclohexane	U	1.2	ug/Kgdrywt	1	5	6.0	1.2	3.0
Total Xylene	U	1.6	ug/Kgdrywt	1	15	18.	1.6	9.0
p-Bromofluorobenzene		66.2	%					
Toluene-D8		81.6	%					
1,2-Dichloroethane-D4		97.4	%					
Dibromofluoromethane		90.3	%					

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-15
Client ID: 45-SB14-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 86.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.92	ug/Kgdrywt	1	10	10.	0.92	5.0
Chloromethane	U	1.4	ug/Kgdrywt	1	10	10.	1.4	5.0
Vinyl Chloride	U	0.87	ug/Kgdrywt	1	10	10.	0.87	5.0
Bromomethane	U	1.1	ug/Kgdrywt	1	10	10.	1.1	5.0
Chloroethane	U	1.3	ug/Kgdrywt	1	10	10.	1.3	5.0
Trichlorofluoromethane	U	0.91	ug/Kgdrywt	1	10	10.	0.91	5.0
1,1-Dichloroethene	U	0.93	ug/Kgdrywt	1	5	5.0	0.93	2.5
Carbon Disulfide	IV	0.98	ug/Kgdrywt	1	5	5.0	0.78	2.5
Methylene Chloride	U	7.9	ug/Kgdrywt	1	25	25.	7.9	12.
Acetone	IV	8.8	ug/Kgdrywt	1	25	25.	5.1	12.
trans-1,2-Dichloroethene	U	0.71	ug/Kgdrywt	1	5	5.0	0.71	2.5
Methyl tert-butyl Ether	U	1.1	ug/Kgdrywt	1	5	5.0	1.1	2.5
1,1-Dichloroethane	U	1.7	ug/Kgdrywt	1	5	5.0	1.7	2.5
cis-1,2-Dichloroethene	U	0.91	ug/Kgdrywt	1	5	5.0	0.91	2.5
Chloroform	U	0.35	ug/Kgdrywt	1	5	5.0	0.35	2.5
Carbon Tetrachloride	U	1.3	ug/Kgdrywt	1	5	5.0	1.3	2.5
1,1,1-Trichloroethane	U	0.42	ug/Kgdrywt	1	5	5.0	0.42	2.5
2-Butanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Benzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,2-Dichloroethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
Trichloroethene	U	0.59	ug/Kgdrywt	1	5	5.0	0.59	2.5
1,2-Dichloropropane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Bromodichloromethane	U	0.60	ug/Kgdrywt	1	5	5.0	0.60	2.5
cis-1,3-Dichloropropene	U	0.72	ug/Kgdrywt	1	5	5.0	0.72	2.5
Toluene	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
4-Methyl-2-Pentanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Tetrachloroethene	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
trans-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	5.0	0.86	2.5
1,1,2-Trichloroethane	U	0.97	ug/Kgdrywt	1	5	5.0	0.97	2.5
Dibromochloromethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
1,2-Dibromoethane	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
2-Hexanone	U	4.8	ug/Kgdrywt	1	25	25.	4.8	12.
Chlorobenzene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5
Ethylbenzene	U	0.65	ug/Kgdrywt	1	5	5.0	0.65	2.5
Styrene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-15
Client ID: 45-SB14-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 86.
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.70	ug/Kgdrywt	1	5	5.0	0.70	2.5
Isopropylbenzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,1,2,2-Tetrachloroethane	U	0.84	ug/Kgdrywt	1	5	5.0	0.84	2.5
1,3-Dichlorobenzene	U	0.62	ug/Kgdrywt	1	5	5.0	0.62	2.5
1,4-Dichlorobenzene	U	0.44	ug/Kgdrywt	1	5	5.0	0.44	2.5
1,2-Dichlorobenzene	U	0.78	ug/Kgdrywt	1	5	5.0	0.78	2.5
1,2-Dibromo-3-Chloropropane	U	1.5	ug/Kgdrywt	1	5	5.0	1.5	2.5
1,2,4-Trichlorobenzene	U	0.79	ug/Kgdrywt	1	5	5.0	0.79	2.5
Freon-113	U	0.90	ug/Kgdrywt	1	5	5.0	0.90	2.5
Cyclohexane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Methyl acetate	U	2.7	ug/Kgdrywt	1	5	5.0	2.7	3.0
Methylcyclohexane	U	0.96	ug/Kgdrywt	1	5	5.0	0.96	2.5
Total Xylene	U	1.3	ug/Kgdrywt	1	15	15.	1.3	7.5
p-Bromofluorobenzene		63.6	%					
Toluene-D8		78.3	%					
1,2-Dichloroethane-D4		93.9	%					
Dibromofluoromethane		87.2	%					

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ANALYTICAL SERVICES

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-17
Client ID: TB-03
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 100
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.92	ug/Kgdrywt	1	10	10.	0.92	5.0
Chloromethane	U	1.4	ug/Kgdrywt	1	10	10.	1.4	5.0
Vinyl Chloride	U	0.87	ug/Kgdrywt	1	10	10.	0.87	5.0
Bromomethane	U	1.1	ug/Kgdrywt	1	10	10.	1.1	5.0
Chloroethane	U	1.3	ug/Kgdrywt	1	10	10.	1.3	5.0
Trichlorofluoromethane	U	0.91	ug/Kgdrywt	1	10	10.	0.91	5.0
1,1-Dichloroethene	U	0.93	ug/Kgdrywt	1	5	5.0	0.93	2.5
Carbon Disulfide	IV	1.2	ug/Kgdrywt	1	5	5.0	0.78	2.5
Methylene Chloride	U	7.9	ug/Kgdrywt	1	25	25.	7.9	12.
Acetone	IV	7.8	ug/Kgdrywt	1	25	25.	5.1	12.
trans-1,2-Dichloroethene	U	0.71	ug/Kgdrywt	1	5	5.0	0.71	2.5
Methyl tert-butyl Ether	U	1.1	ug/Kgdrywt	1	5	5.0	1.1	2.5
1,1-Dichloroethane	U	1.7	ug/Kgdrywt	1	5	5.0	1.7	2.5
cis-1,2-Dichloroethene	U	0.91	ug/Kgdrywt	1	5	5.0	0.91	2.5
Chloroform	U	0.35	ug/Kgdrywt	1	5	5.0	0.35	2.5
Carbon Tetrachloride	U	1.3	ug/Kgdrywt	1	5	5.0	1.3	2.5
1,1,1-Trichloroethane	U	0.42	ug/Kgdrywt	1	5	5.0	0.42	2.5
2-Butanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Benzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,2-Dichloroethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
Trichloroethene	U	0.59	ug/Kgdrywt	1	5	5.0	0.59	2.5
1,2-Dichloropropane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Bromodichloromethane	U	0.60	ug/Kgdrywt	1	5	5.0	0.60	2.5
cis-1,3-Dichloropropene	U	0.72	ug/Kgdrywt	1	5	5.0	0.72	2.5
Toluene	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
4-Methyl-2-Pentanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Tetrachloroethene	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
trans-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	5.0	0.86	2.5
1,1,2-Trichloroethane	U	0.97	ug/Kgdrywt	1	5	5.0	0.97	2.5
Dibromochloromethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
1,2-Dibromoethane	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
2-Hexanone	U	4.8	ug/Kgdrywt	1	25	25.	4.8	12.
Chlorobenzene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5
Ethylbenzene	U	0.65	ug/Kgdrywt	1	5	5.0	0.65	2.5
Styrene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-17
Client ID: TB-03
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: 100
Report Date: 13-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.70	ug/Kgdrywt	1	5	5.0	0.70	2.5
Isopropylbenzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,1,2,2-Tetrachloroethane	U	0.84	ug/Kgdrywt	1	5	5.0	0.84	2.5
1,3-Dichlorobenzene	U	0.62	ug/Kgdrywt	1	5	5.0	0.62	2.5
1,4-Dichlorobenzene	U	0.44	ug/Kgdrywt	1	5	5.0	0.44	2.5
1,2-Dichlorobenzene	U	0.78	ug/Kgdrywt	1	5	5.0	0.78	2.5
1,2-Dibromo-3-Chloropropane	U	1.5	ug/Kgdrywt	1	5	5.0	1.5	2.5
1,2,4-Trichlorobenzene	U	0.79	ug/Kgdrywt	1	5	5.0	0.79	2.5
Freon-113	U	0.90	ug/Kgdrywt	1	5	5.0	0.90	2.5
Cyclohexane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Methyl acetate	U	2.7	ug/Kgdrywt	1	5	5.0	2.7	3.0
Methylcyclohexane	U	0.96	ug/Kgdrywt	1	5	5.0	0.96	2.5
Total Xylene	U	1.3	ug/Kgdrywt	1	15	15.	1.3	7.5
p-Bromofluorobenzene		90.2	%					
Toluene-D8		90.2	%					
1,2-Dichloroethane-D4		94.2	%					
Dibromofluoromethane		92.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 93.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	I	3.0	ug/Kgdrywt	1	20	20.	2.6	10.
1-Methylnaphthalene	I	3.6	ug/Kgdrywt	1	20	20.	1.7	10.
2-Methylnaphthalene	I	2.6	ug/Kgdrywt	1	20	20.	2.2	10.
Acenaphthylene	I	2.8	ug/Kgdrywt	1	20	20.	1.2	10.
Acenaphthene	I	13.	ug/Kgdrywt	1	20	20.	1.5	10.
Fluorene	I	8.7	ug/Kgdrywt	1	20	20.	3.2	10.
Phenanthrene		130	ug/Kgdrywt	1	20	20.	1.8	10.
Anthracene	I	18.	ug/Kgdrywt	1	20	20.	1.2	10.
Fluoranthene	L	280	ug/Kgdrywt	1	20	20.	1.8	10.
Pyrene		200	ug/Kgdrywt	1	20	20.	2.1	10.
Benzo (a) anthracene		110	ug/Kgdrywt	1	20	20.	1.9	10.
Chrysene		120	ug/Kgdrywt	1	20	20.	1.7	10.
Benzo (b) Fluoranthene		190	ug/Kgdrywt	1	20	20.	2.4	10.
Benzo(k)fluoranthene		69.	ug/Kgdrywt	1	20	20.	3.1	10.
Benzo(a)pyrene		120	ug/Kgdrywt	1	20	20.	3.3	10.
Indeno (1,2,3-cd) pyrene		100	ug/Kgdrywt	1	20	20.	1.9	10.
Dibenzo (a,h) anthracene	I	20.	ug/Kgdrywt	1	20	20.	1.8	10.
Benzo(g,h,i)perylene		70.	ug/Kgdrywt	1	20	20.	2.0	10.
2-Methylnaphthalene-D10		36.4	%					
Fluorene-D10		32.0	%					
Pyrene-D10		42.5	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13DL
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 93.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	10.	ug/Kgdrywt	4	20	80.	10.	40.
1-Methylnaphthalene	U	6.8	ug/Kgdrywt	4	20	80.	6.8	40.
2-Methylnaphthalene	U	8.9	ug/Kgdrywt	4	20	80.	8.9	40.
Acenaphthylene	U	4.8	ug/Kgdrywt	4	20	80.	4.8	40.
Acenaphthene	I	13.	ug/Kgdrywt	4	20	80.	6.0	40.
Fluorene	U	13.	ug/Kgdrywt	4	20	80.	13.	40.
Phenanthrene		130	ug/Kgdrywt	4	20	80.	7.2	40.
Anthracene	I	26.	ug/Kgdrywt	4	20	80.	4.8	40.
Fluoranthene		300	ug/Kgdrywt	4	20	80.	7.2	40.
Pyrene		180	ug/Kgdrywt	4	20	80.	8.4	40.
Benzo (a) anthracene		120	ug/Kgdrywt	4	20	80.	7.6	40.
Chrysene		130	ug/Kgdrywt	4	20	80.	6.8	40.
Benzo (b) Fluoranthene		190	ug/Kgdrywt	4	20	80.	9.7	40.
Benzo(k)fluoranthene	I	70.	ug/Kgdrywt	4	20	80.	12.	40.
Benzo(a)pyrene		120	ug/Kgdrywt	4	20	80.	13.	40.
Indeno (1,2,3-cd) pyrene		130	ug/Kgdrywt	4	20	80.	7.6	40.
Dibenzo (a,h) anthracene	I	23.	ug/Kgdrywt	4	20	80.	7.2	40.
Benzo(g,h,i)perylene		87.	ug/Kgdrywt	4	20	80.	8.0	40.
2-Methylnaphthalene-D10		35.6	%					
Fluorene-D10		31.7	%					
Pyrene-D10		39.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-5
Client ID: 45-SB05-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 72.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	I	15.	ug/Kgdrywt	1	20	27.	3.5	14.
1-Methylnaphthalene	I	6.7	ug/Kgdrywt	1	20	27.	2.3	14.
2-Methylnaphthalene	I	7.8	ug/Kgdrywt	1	20	27.	3.0	14.
Acenaphthylene	I	2.9	ug/Kgdrywt	1	20	27.	1.6	14.
Acenaphthene	I	17.	ug/Kgdrywt	1	20	27.	2.0	14.
Fluorene	I	10.	ug/Kgdrywt	1	20	27.	4.3	14.
Phenanthrene		150	ug/Kgdrywt	1	20	27.	2.4	14.
Anthracene	I	12.	ug/Kgdrywt	1	20	27.	1.6	14.
Fluoranthene		200	ug/Kgdrywt	1	20	27.	2.4	14.
Pyrene		140	ug/Kgdrywt	1	20	27.	2.8	14.
Benzo (a) anthracene		68.	ug/Kgdrywt	1	20	27.	2.6	14.
Chrysene		100	ug/Kgdrywt	1	20	27.	2.3	14.
Benzo (b) Fluoranthene		150	ug/Kgdrywt	1	20	27.	3.2	14.
Benzo(k)fluoranthene		57.	ug/Kgdrywt	1	20	27.	4.2	14.
Benzo(a)pyrene		87.	ug/Kgdrywt	1	20	27.	4.5	14.
Indeno (1,2,3-cd) pyrene		100	ug/Kgdrywt	1	20	27.	2.6	14.
Dibenzo (a,h) anthracene	I	15.	ug/Kgdrywt	1	20	27.	2.4	14.
Benzo(g,h,i)perylene		69.	ug/Kgdrywt	1	20	27.	2.7	14.
2-Methylnaphthalene-D10		30.3	%					
Fluorene-D10		28.2	%					
Pyrene-D10		38.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 01-JUL-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	I	6.3	ug/Kgdrywt	1	20	23.	3.0	12.
1-Methylnaphthalene	I	8.9	ug/Kgdrywt	1	20	23.	2.0	12.
2-Methylnaphthalene	I	5.4	ug/Kgdrywt	1	20	23.	2.5	12.
Acenaphthylene	U	1.4	ug/Kgdrywt	1	20	23.	1.4	12.
Acenaphthene		68.	ug/Kgdrywt	1	20	23.	1.7	12.
Fluorene		46.	ug/Kgdrywt	1	20	23.	3.7	12.
Phenanthrene	L	390	ug/Kgdrywt	1	20	23.	2.1	12.
Anthracene		57.	ug/Kgdrywt	1	20	23.	1.4	12.
Fluoranthene	L	650	ug/Kgdrywt	1	20	23.	2.1	12.
Pyrene	L	430	ug/Kgdrywt	1	20	23.	2.4	12.
Benzo (a) anthracene	L	310	ug/Kgdrywt	1	20	23.	2.2	12.
Chrysene	L	320	ug/Kgdrywt	1	20	23.	2.0	12.
Benzo (b) Fluoranthene	L	470	ug/Kgdrywt	1	20	23.	2.8	12.
Benzo(k)fluoranthene		170	ug/Kgdrywt	1	20	23.	3.6	12.
Benzo(a)pyrene		300	ug/Kgdrywt	1	20	23.	3.8	12.
Indeno (1,2,3-cd) pyrene		240	ug/Kgdrywt	1	20	23.	2.2	12.
Dibenzo (a,h) anthracene		49.	ug/Kgdrywt	1	20	23.	2.1	12.
Benzo(g,h,i)perylene		130	ug/Kgdrywt	1	20	23.	2.3	12.
2-Methylnaphthalene-D10		39.0	%					
Fluorene-D10		34.8	%					
Pyrene-D10		42.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6DL
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	9.0	ug/Kgdrywt	3	20	70.	9.0	35.
1-Methylnaphthalene	I	8.2	ug/Kgdrywt	3	20	70.	5.9	35.
2-Methylnaphthalene	U	7.6	ug/Kgdrywt	3	20	70.	7.6	35.
Acenaphthylene	U	4.2	ug/Kgdrywt	3	20	70.	4.2	35.
Acenaphthene	I	60.	ug/Kgdrywt	3	20	70.	5.2	35.
Fluorene	I	42.	ug/Kgdrywt	3	20	70.	11.	35.
Phenanthrene		360	ug/Kgdrywt	3	20	70.	6.2	35.
Anthracene	I	59.	ug/Kgdrywt	3	20	70.	4.2	35.
Fluoranthene		640	ug/Kgdrywt	3	20	70.	6.2	35.
Pyrene		390	ug/Kgdrywt	3	20	70.	7.3	35.
Benzo (a) anthracene		280	ug/Kgdrywt	3	20	70.	6.6	35.
Chrysene		320	ug/Kgdrywt	3	20	70.	5.9	35.
Benzo (b) Fluoranthene		430	ug/Kgdrywt	3	20	70.	8.3	35.
Benzo(k)fluoranthene		160	ug/Kgdrywt	3	20	70.	11.	35.
Benzo(a)pyrene		270	ug/Kgdrywt	3	20	70.	11.	35.
Indeno (1,2,3-cd) pyrene		230	ug/Kgdrywt	3	20	70.	6.6	35.
Dibenzo (a,h) anthracene	I	46.	ug/Kgdrywt	3	20	70.	6.2	35.
Benzo(g,h,i)perylene		140	ug/Kgdrywt	3	20	70.	7.0	35.
2-Methylnaphthalene-D10		36.0	%					
Fluorene-D10		32.0	%					
Pyrene-D10		40.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 82.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene		33.	ug/Kgdrywt	1	20	24.	3.1	12.
1-Methylnaphthalene	I	10.	ug/Kgdrywt	1	20	24.	2.0	12.
2-Methylnaphthalene	I	13.	ug/Kgdrywt	1	20	24.	2.6	12.
Acenaphthylene	I	6.3	ug/Kgdrywt	1	20	24.	1.4	12.
Acenaphthene		25.	ug/Kgdrywt	1	20	24.	1.8	12.
Fluorene	I	16.	ug/Kgdrywt	1	20	24.	3.8	12.
Phenanthrene		200	ug/Kgdrywt	1	20	24.	2.2	12.
Anthracene	I	12.	ug/Kgdrywt	1	20	24.	1.4	12.
Fluoranthene	L	350	ug/Kgdrywt	1	20	24.	2.2	12.
Pyrene		220	ug/Kgdrywt	1	20	24.	2.5	12.
Benzo (a) anthracene		130	ug/Kgdrywt	1	20	24.	2.3	12.
Chrysene		170	ug/Kgdrywt	1	20	24.	2.0	12.
Benzo (b) Fluoranthene		280	ug/Kgdrywt	1	20	24.	2.9	12.
Benzo(k)fluoranthene		86.	ug/Kgdrywt	1	20	24.	3.7	12.
Benzo(a)pyrene		170	ug/Kgdrywt	1	20	24.	4.0	12.
Indeno (1,2,3-cd) pyrene		150	ug/Kgdrywt	1	20	24.	2.3	12.
Dibenzo (a,h) anthracene		30.	ug/Kgdrywt	1	20	24.	2.2	12.
Benzo(g,h,i)perylene		100	ug/Kgdrywt	1	20	24.	2.4	12.
2-Methylnaphthalene-D10		31.5	%					
Fluorene-D10		28.4	%					
Pyrene-D10		36.6	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7DL
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 82.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	I	35.	ug/Kgdrywt	2	20	48.	6.3	24.
1-Methylnaphthalene	I	11.	ug/Kgdrywt	2	20	48.	4.1	24.
2-Methylnaphthalene	I	13.	ug/Kgdrywt	2	20	48.	5.3	24.
Acenaphthylene	U	2.9	ug/Kgdrywt	2	20	48.	2.9	24.
Acenaphthene	I	28.	ug/Kgdrywt	2	20	48.	3.6	24.
Fluorene	I	17.	ug/Kgdrywt	2	20	48.	7.7	24.
Phenanthrene		220	ug/Kgdrywt	2	20	48.	4.3	24.
Anthracene	I	14.	ug/Kgdrywt	2	20	48.	2.9	24.
Fluoranthene		340	ug/Kgdrywt	2	20	48.	4.3	24.
Pyrene		240	ug/Kgdrywt	2	20	48.	5.1	24.
Benzo (a) anthracene		130	ug/Kgdrywt	2	20	48.	4.6	24.
Chrysene		200	ug/Kgdrywt	2	20	48.	4.1	24.
Benzo (b) Fluoranthene		270	ug/Kgdrywt	2	20	48.	5.8	24.
Benzo(k)fluoranthene		110	ug/Kgdrywt	2	20	48.	7.5	24.
Benzo(a)pyrene		180	ug/Kgdrywt	2	20	48.	8.0	24.
Indeno (1,2,3-cd) pyrene		200	ug/Kgdrywt	2	20	48.	4.6	24.
Dibenzo (a,h) anthracene	I	12.	ug/Kgdrywt	2	20	48.	4.3	24.
Benzo(g,h,i)perylene		120	ug/Kgdrywt	2	20	48.	4.8	24.
2-Methylnaphthalene-D10		38.2	%					
Fluorene-D10		30.9	%					
Pyrene-D10		40.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-8
Client ID: 45-SB08-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 95.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	2.7	ug/Kgdrywt	1	20	21.	2.7	10.
1-Methylnaphthalene	U	1.8	ug/Kgdrywt	1	20	21.	1.8	10.
2-Methylnaphthalene	U	2.3	ug/Kgdrywt	1	20	21.	2.3	10.
Acenaphthylene	I	11.	ug/Kgdrywt	1	20	21.	1.2	10.
Acenaphthene	I	4.0	ug/Kgdrywt	1	20	21.	1.6	10.
Fluorene	U	3.3	ug/Kgdrywt	1	20	21.	3.3	10.
Phenanthrene		40.	ug/Kgdrywt	1	20	21.	1.9	10.
Anthracene	I	6.6	ug/Kgdrywt	1	20	21.	1.2	10.
Fluoranthene		150	ug/Kgdrywt	1	20	21.	1.9	10.
Pyrene		110	ug/Kgdrywt	1	20	21.	2.2	10.
Benzo (a) anthracene		110	ug/Kgdrywt	1	20	21.	2.0	10.
Chrysene		120	ug/Kgdrywt	1	20	21.	1.8	10.
Benzo (b) Fluoranthene		240	ug/Kgdrywt	1	20	21.	2.5	10.
Benzo(k)fluoranthene		76.	ug/Kgdrywt	1	20	21.	3.2	10.
Benzo(a)pyrene		150	ug/Kgdrywt	1	20	21.	3.4	10.
Indeno (1,2,3-cd) pyrene		150	ug/Kgdrywt	1	20	21.	2.0	10.
Dibenzo (a,h) anthracene		34.	ug/Kgdrywt	1	20	21.	1.9	10.
Benzo(g,h,i)perylene		99.	ug/Kgdrywt	1	20	21.	2.1	10.
2-Methylnaphthalene-D10		38.2	%					
Fluorene-D10		35.3	%					
Pyrene-D10		45.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	2.9	ug/Kgdrywt	1	20	23.	2.9	11.
1-Methylnaphthalene	U	1.9	ug/Kgdrywt	1	20	23.	1.9	11.
2-Methylnaphthalene	U	2.5	ug/Kgdrywt	1	20	23.	2.5	11.
Acenaphthylene	U	1.4	ug/Kgdrywt	1	20	23.	1.4	11.
Acenaphthene	U	1.7	ug/Kgdrywt	1	20	23.	1.7	11.
Fluorene	U	3.6	ug/Kgdrywt	1	20	23.	3.6	11.
Phenanthrene	I	9.9	ug/Kgdrywt	1	20	23.	2.0	11.
Anthracene	I	2.8	ug/Kgdrywt	1	20	23.	1.4	11.
Fluoranthene		58.	ug/Kgdrywt	1	20	23.	2.0	11.
Pyrene		34.	ug/Kgdrywt	1	20	23.	2.4	11.
Benzo (a) anthracene		32.	ug/Kgdrywt	1	20	23.	2.2	11.
Chrysene		32.	ug/Kgdrywt	1	20	23.	1.9	11.
Benzo (b) Fluoranthene		52.	ug/Kgdrywt	1	20	23.	2.7	11.
Benzo(k)fluoranthene	I	18.	ug/Kgdrywt	1	20	23.	3.5	11.
Benzo(a)pyrene		35.	ug/Kgdrywt	1	20	23.	3.7	11.
Indeno (1,2,3-cd) pyrene		32.	ug/Kgdrywt	1	20	23.	2.2	11.
Dibenzo (a,h) anthracene	I	6.9	ug/Kgdrywt	1	20	23.	2.0	11.
Benzo(g,h,i)perylene	I	18.	ug/Kgdrywt	1	20	23.	2.3	11.
2-Methylnaphthalene-D10		37.4	%					
Fluorene-D10		30.4	%					
Pyrene-D10		37.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9RA
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	2.9	ug/Kgdrywt	1	20	23.	2.9	11.
1-Methylnaphthalene	U	1.9	ug/Kgdrywt	1	20	23.	1.9	11.
2-Methylnaphthalene	U	2.5	ug/Kgdrywt	1	20	23.	2.5	11.
Acenaphthylene	U	1.4	ug/Kgdrywt	1	20	23.	1.4	11.
Acenaphthene	U	1.7	ug/Kgdrywt	1	20	23.	1.7	11.
Fluorene	U	3.6	ug/Kgdrywt	1	20	23.	3.6	11.
Phenanthrene	I	9.7	ug/Kgdrywt	1	20	23.	2.0	11.
Anthracene	I	2.7	ug/Kgdrywt	1	20	23.	1.4	11.
Fluoranthene		57.	ug/Kgdrywt	1	20	23.	2.0	11.
Pyrene		32.	ug/Kgdrywt	1	20	23.	2.4	11.
Benzo (a) anthracene		30.	ug/Kgdrywt	1	20	23.	2.2	11.
Chrysene		32.	ug/Kgdrywt	1	20	23.	1.9	11.
Benzo (b) Fluoranthene		47.	ug/Kgdrywt	1	20	23.	2.7	11.
Benzo(k)fluoranthene	I	20.	ug/Kgdrywt	1	20	23.	3.5	11.
Benzo(a)pyrene		35.	ug/Kgdrywt	1	20	23.	3.7	11.
Indeno (1,2,3-cd) pyrene		36.	ug/Kgdrywt	1	20	23.	2.2	11.
Dibenzo (a,h) anthracene	I	7.2	ug/Kgdrywt	1	20	23.	2.0	11.
Benzo(g,h,i)perylene	I	21.	ug/Kgdrywt	1	20	23.	2.3	11.
2-Methylnaphthalene-D10		36.2	%					
Fluorene-D10		29.8	%					
Pyrene-D10		35.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-10
Client ID: 45-SB10-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 82.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	2.9	ug/Kgdrywt	1	20	22.	2.9	11.
1-Methylnaphthalene	U	1.9	ug/Kgdrywt	1	20	22.	1.9	11.
2-Methylnaphthalene	U	2.5	ug/Kgdrywt	1	20	22.	2.5	11.
Acenaphthylene	U	1.3	ug/Kgdrywt	1	20	22.	1.3	11.
Acenaphthene	U	1.7	ug/Kgdrywt	1	20	22.	1.7	11.
Fluorene	U	3.6	ug/Kgdrywt	1	20	22.	3.6	11.
Phenanthrene	I	2.2	ug/Kgdrywt	1	20	22.	2.0	11.
Anthracene	U	1.3	ug/Kgdrywt	1	20	22.	1.3	11.
Fluoranthene	I	7.7	ug/Kgdrywt	1	20	22.	2.0	11.
Pyrene	I	6.0	ug/Kgdrywt	1	20	22.	2.3	11.
Benzo (a) anthracene	I	4.0	ug/Kgdrywt	1	20	22.	2.1	11.
Chrysene	I	6.1	ug/Kgdrywt	1	20	22.	1.9	11.
Benzo (b) Fluoranthene	I	15.	ug/Kgdrywt	1	20	22.	2.7	11.
Benzo(k)fluoranthene	I	5.0	ug/Kgdrywt	1	20	22.	3.5	11.
Benzo(a)pyrene	I	11.	ug/Kgdrywt	1	20	22.	3.7	11.
Indeno (1,2,3-cd) pyrene	I	14.	ug/Kgdrywt	1	20	22.	2.1	11.
Dibenzo (a,h) anthracene	I	2.8	ug/Kgdrywt	1	20	22.	2.0	11.
Benzo(g,h,i)perylene	I	9.4	ug/Kgdrywt	1	20	22.	2.2	11.
2-Methylnaphthalene-D10		33.6	%					
Fluorene-D10		28.0	%					
Pyrene-D10		38.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 83.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	3.0	ug/Kgdrywt	1	20	23.	3.0	12.
1-Methylnaphthalene	I	7.2	ug/Kgdrywt	1	20	23.	2.0	12.
2-Methylnaphthalene	I	3.5	ug/Kgdrywt	1	20	23.	2.6	12.
Acenaphthylene	U	1.4	ug/Kgdrywt	1	20	23.	1.4	12.
Acenaphthene		37.	ug/Kgdrywt	1	20	23.	1.8	12.
Fluorene		27.	ug/Kgdrywt	1	20	23.	3.7	12.
Phenanthrene	L	340	ug/Kgdrywt	1	20	23.	2.1	12.
Anthracene		74.	ug/Kgdrywt	1	20	23.	1.4	12.
Fluoranthene	L	620	ug/Kgdrywt	1	20	23.	2.1	12.
Pyrene	L	350	ug/Kgdrywt	1	20	23.	2.4	12.
Benzo (a) anthracene		230	ug/Kgdrywt	1	20	23.	2.2	12.
Chrysene		200	ug/Kgdrywt	1	20	23.	2.0	12.
Benzo (b) Fluoranthene		260	ug/Kgdrywt	1	20	23.	2.8	12.
Benzo(k)fluoranthene		88.	ug/Kgdrywt	1	20	23.	3.6	12.
Benzo(a)pyrene		160	ug/Kgdrywt	1	20	23.	3.8	12.
Indeno (1,2,3-cd) pyrene		120	ug/Kgdrywt	1	20	23.	2.2	12.
Dibenzo (a,h) anthracene		26.	ug/Kgdrywt	1	20	23.	2.1	12.
Benzo(g,h,i)perylene		67.	ug/Kgdrywt	1	20	23.	2.3	12.
2-Methylnaphthalene-D10		26.2	%					
Fluorene-D10		24.0	%					
Pyrene-D10	J	30.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11DL
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 83.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	12.	ug/Kgdrywt	4	20	93.	12.	47.
1-Methylnaphthalene	U	7.9	ug/Kgdrywt	4	20	93.	7.9	47.
2-Methylnaphthalene	U	10.	ug/Kgdrywt	4	20	93.	10.	47.
Acenaphthylene	U	5.6	ug/Kgdrywt	4	20	93.	5.6	47.
Acenaphthene	I	40.	ug/Kgdrywt	4	20	93.	7.0	47.
Fluorene	I	28.	ug/Kgdrywt	4	20	93.	15.	47.
Phenanthrene		360	ug/Kgdrywt	4	20	93.	8.4	47.
Anthracene	I	92.	ug/Kgdrywt	4	20	93.	5.6	47.
Fluoranthene		660	ug/Kgdrywt	4	20	93.	8.4	47.
Pyrene		350	ug/Kgdrywt	4	20	93.	9.8	47.
Benzo (a) anthracene		250	ug/Kgdrywt	4	20	93.	8.9	47.
Chrysene		220	ug/Kgdrywt	4	20	93.	7.9	47.
Benzo (b) Fluoranthene		250	ug/Kgdrywt	4	20	93.	11.	47.
Benzo(k)fluoranthene		100	ug/Kgdrywt	4	20	93.	14.	47.
Benzo(a)pyrene		170	ug/Kgdrywt	4	20	93.	15.	47.
Indeno (1,2,3-cd) pyrene		160	ug/Kgdrywt	4	20	93.	8.9	47.
Dibenzo (a,h) anthracene	I	30.	ug/Kgdrywt	4	20	93.	8.4	47.
Benzo(g,h,i)perylene	I	81.	ug/Kgdrywt	4	20	93.	9.3	47.
2-Methylnaphthalene-D10		30.6	%					
Fluorene-D10		25.8	%					
Pyrene-D10		33.0	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-12
Client ID: 45-SB12-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 93.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	I	13.	ug/Kgdrywt	1	20	21.	2.8	11.
1-Methylnaphthalene	I	5.9	ug/Kgdrywt	1	20	21.	1.8	11.
2-Methylnaphthalene	I	5.7	ug/Kgdrywt	1	20	21.	2.4	11.
Acenaphthylene	I	2.3	ug/Kgdrywt	1	20	21.	1.3	11.
Acenaphthene	I	18.	ug/Kgdrywt	1	20	21.	1.6	11.
Fluorene	I	14.	ug/Kgdrywt	1	20	21.	3.4	11.
Phenanthrene		160	ug/Kgdrywt	1	20	21.	1.9	11.
Anthracene	I	13.	ug/Kgdrywt	1	20	21.	1.3	11.
Fluoranthene		250	ug/Kgdrywt	1	20	21.	1.9	11.
Pyrene		160	ug/Kgdrywt	1	20	21.	2.2	11.
Benzo (a) anthracene		82.	ug/Kgdrywt	1	20	21.	2.0	11.
Chrysene		120	ug/Kgdrywt	1	20	21.	1.8	11.
Benzo (b) Fluoranthene		190	ug/Kgdrywt	1	20	21.	2.6	11.
Benzo(k)fluoranthene		60.	ug/Kgdrywt	1	20	21.	3.3	11.
Benzo(a)pyrene		110	ug/Kgdrywt	1	20	21.	3.5	11.
Indeno (1,2,3-cd) pyrene		99.	ug/Kgdrywt	1	20	21.	2.0	11.
Dibenzo (a,h) anthracene	I	18.	ug/Kgdrywt	1	20	21.	1.9	11.
Benzo(g,h,i)perylene		67.	ug/Kgdrywt	1	20	21.	2.1	11.
2-Methylnaphthalene-D10		35.2	%					
Fluorene-D10		29.8	%					
Pyrene-D10		40.6	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 80.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	I	4.0	ug/Kgdrywt	1	20	24.	3.1	12.
1-Methylnaphthalene	I	3.2	ug/Kgdrywt	1	20	24.	2.0	12.
2-Methylnaphthalene	I	3.0	ug/Kgdrywt	1	20	24.	2.6	12.
Acenaphthylene	I	3.8	ug/Kgdrywt	1	20	24.	1.4	12.
Acenaphthene	I	8.7	ug/Kgdrywt	1	20	24.	1.8	12.
Fluorene	I	6.0	ug/Kgdrywt	1	20	24.	3.8	12.
Phenanthrene		76.	ug/Kgdrywt	1	20	24.	2.1	12.
Anthracene	I	7.9	ug/Kgdrywt	1	20	24.	1.4	12.
Fluoranthene		150	ug/Kgdrywt	1	20	24.	2.1	12.
Pyrene		120	ug/Kgdrywt	1	20	24.	2.5	12.
Benzo (a) anthracene		72.	ug/Kgdrywt	1	20	24.	2.2	12.
Chrysene		89.	ug/Kgdrywt	1	20	24.	2.0	12.
Benzo (b) Fluoranthene		160	ug/Kgdrywt	1	20	24.	2.8	12.
Benzo(k)fluoranthene		49.	ug/Kgdrywt	1	20	24.	3.7	12.
Benzo(a)pyrene		93.	ug/Kgdrywt	1	20	24.	3.9	12.
Indeno (1,2,3-cd) pyrene		96.	ug/Kgdrywt	1	20	24.	2.2	12.
Dibenzo (a,h) anthracene	I	19.	ug/Kgdrywt	1	20	24.	2.1	12.
Benzo(g,h,i)perylene		78.	ug/Kgdrywt	1	20	24.	2.4	12.
2-Methylnaphthalene-D10		37.7	%					
Fluorene-D10		32.4	%					
Pyrene-D10		43.5	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-15
Client ID: 45-SB14-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	3.0	ug/Kgdrywt	1	20	23.	3.0	12.
1-Methylnaphthalene	U	2.0	ug/Kgdrywt	1	20	23.	2.0	12.
2-Methylnaphthalene	U	2.5	ug/Kgdrywt	1	20	23.	2.5	12.
Acenaphthylene	U	1.4	ug/Kgdrywt	1	20	23.	1.4	12.
Acenaphthene	U	1.7	ug/Kgdrywt	1	20	23.	1.7	12.
Fluorene	U	3.7	ug/Kgdrywt	1	20	23.	3.7	12.
Phenanthrene	I	2.2	ug/Kgdrywt	1	20	23.	2.1	12.
Anthracene	U	1.4	ug/Kgdrywt	1	20	23.	1.4	12.
Fluoranthene	I	5.5	ug/Kgdrywt	1	20	23.	2.1	12.
Pyrene	I	3.9	ug/Kgdrywt	1	20	23.	2.4	12.
Benzo (a) anthracene	I	2.5	ug/Kgdrywt	1	20	23.	2.2	12.
Chrysene	I	3.4	ug/Kgdrywt	1	20	23.	2.0	12.
Benzo (b) Fluoranthene	I	6.9	ug/Kgdrywt	1	20	23.	2.8	12.
Benzo(k)fluoranthene	U	3.6	ug/Kgdrywt	1	20	23.	3.6	12.
Benzo(a)pyrene	I	5.0	ug/Kgdrywt	1	20	23.	3.8	12.
Indeno (1,2,3-cd) pyrene	I	6.6	ug/Kgdrywt	1	20	23.	2.2	12.
Dibenzo (a,h) anthracene	U	2.1	ug/Kgdrywt	1	20	23.	2.1	12.
Benzo(g,h,i)perylene	I	5.4	ug/Kgdrywt	1	20	23.	2.3	12.
2-Methylnaphthalene-D10		36.5	%					
Fluorene-D10		31.2	%					
Pyrene-D10		42.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 93.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	160	ug/Kgdrywt	1	330	330	160	250
Bis(2-Chloroethyl) Ether	U	82.	ug/Kgdrywt	1	330	330	82.	250
2-Chlorophenol	U	160	ug/Kgdrywt	1	330	330	160	250
2-Methylphenol	U	200	ug/Kgdrywt	1	330	330	200	250
2,2'-Oxybis(1-Chloropropane)	U	90.	ug/Kgdrywt	1	330	330	90.	250
3&4-Methylphenol	U	190	ug/Kgdrywt	1	330	330	190	250
N-Nitroso-Di-N-Propylamine	U	84.	ug/Kgdrywt	1	330	330	84.	250
Hexachloroethane	U	97.	ug/Kgdrywt	1	330	330	97.	250
Nitrobenzene	U	92.	ug/Kgdrywt	1	330	330	92.	250
Isophorone	U	76.	ug/Kgdrywt	1	330	330	76.	250
2-Nitrophenol	U	170	ug/Kgdrywt	1	330	330	170	250
2,4-Dimethylphenol	U	170	ug/Kgdrywt	1	330	330	170	250
Bis(2-Chloroethoxy) Methane	U	97.	ug/Kgdrywt	1	330	330	97.	250
2,4-Dichlorophenol	U	150	ug/Kgdrywt	1	330	330	150	250
4-Chloroaniline	U	120	ug/Kgdrywt	1	330	330	120	250
Hexachlorobutadiene	U	84.	ug/Kgdrywt	1	330	330	84.	250
4-Chloro-3-Methylphenol	U	170	ug/Kgdrywt	1	330	330	170	250
2,4,6-Trichlorophenol	U	160	ug/Kgdrywt	1	330	330	160	250
2,4,5-Trichlorophenol	U	160	ug/Kgdrywt	1	820	820	160	620
2-Chloronaphthalene	U	88.	ug/Kgdrywt	1	330	330	88.	250
2-Nitroaniline	U	76.	ug/Kgdrywt	1	820	820	76.	620
Dimethyl Phthalate	U	78.	ug/Kgdrywt	1	330	330	78.	250
2,6-Dinitrotoluene	U	80.	ug/Kgdrywt	1	330	330	80.	250
3-Nitroaniline	U	95.	ug/Kgdrywt	1	820	820	95.	620
2,4-Dinitrophenol	U	380	ug/Kgdrywt	1	820	820	380	620
4-Nitrophenol	U	310	ug/Kgdrywt	1	820	820	310	620
Dibenzofuran	U	80.	ug/Kgdrywt	1	330	330	80.	250
2,4-Dinitrotoluene	U	86.	ug/Kgdrywt	1	330	330	86.	250
Diethylphthalate	U	80.	ug/Kgdrywt	1	330	330	80.	250
4-Chlorophenyl-Phenylether	U	78.	ug/Kgdrywt	1	330	330	78.	250
4-Nitroaniline	U	130	ug/Kgdrywt	1	820	820	130	620
4,6-Dinitro-2-Methylphenol	U	340	ug/Kgdrywt	1	820	820	340	620
N-Nitrosodiphenylamine	U	220	ug/Kgdrywt	1	330	330	220	250
4-Bromophenyl-Phenylether	U	86.	ug/Kgdrywt	1	330	330	86.	250
Hexachlorobenzene	U	82.	ug/Kgdrywt	1	330	330	82.	250

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 93.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	240	ug/Kgdrywt	1	820	820	240	620
Carbazole	U	110	ug/Kgdrywt	1	330	330	110	250
Di-N-Butylphthalate	U	100	ug/Kgdrywt	1	330	330	100	250
Butylbenzylphthalate	U	94.	ug/Kgdrywt	1	330	330	94.	250
3,3'-Dichlorobenzidine	U	110	ug/Kgdrywt	1	330	330	110	250
Bis(2-Ethylhexyl)Phthalate	I	230	ug/Kgdrywt	1	330	330	99.	250
Di-N-Octylphthalate	U	210	ug/Kgdrywt	1	330	330	210	250
1,1'-biphenyl	U	74.	ug/Kgdrywt	1	330	330	74.	250
Hexachlorocyclopentadiene	U	82.	ug/Kgdrywt	1	330	330	82.	250
Caprolactam	U	140	ug/Kgdrywt	1	330	330	140	250
Benzaldehyde	U	120	ug/Kgdrywt	1	330	330	120	250
Atrazine	U	92.	ug/Kgdrywt	1	330	330	92.	250
Acetophenone	U	180	ug/Kgdrywt	1	330	330	180	250
2-Fluorophenol		41.1	%					
Phenol-D6		42.8	%					
Nitrobenzene-d5		41.3	%					
2-Fluorobiphenyl		45.6	%					
2,4,6-Tribromophenol		49.1	%					
Terphenyl-d14		59.0	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-5
Client ID: 45-SB05-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 72.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	210	ug/Kgdrywt	1	330	450	210	340
Bis(2-Chloroethyl) Ether	U	110	ug/Kgdrywt	1	330	450	110	340
2-Chlorophenol	U	220	ug/Kgdrywt	1	330	450	220	340
2-Methylphenol	U	270	ug/Kgdrywt	1	330	450	270	340
2,2'-Oxybis(1-Chloropropane)	U	120	ug/Kgdrywt	1	330	450	120	340
3&4-Methylphenol	U	250	ug/Kgdrywt	1	330	450	250	340
N-Nitroso-Di-N-Propylamine	U	110	ug/Kgdrywt	1	330	450	110	340
Hexachloroethane	U	130	ug/Kgdrywt	1	330	450	130	340
Nitrobenzene	U	120	ug/Kgdrywt	1	330	450	120	340
Isophorone	U	100	ug/Kgdrywt	1	330	450	100	340
2-Nitrophenol	U	230	ug/Kgdrywt	1	330	450	230	340
2,4-Dimethylphenol	U	220	ug/Kgdrywt	1	330	450	220	340
Bis(2-Chloroethoxy) Methane	U	130	ug/Kgdrywt	1	330	450	130	340
2,4-Dichlorophenol	U	200	ug/Kgdrywt	1	330	450	200	340
4-Chloroaniline	U	160	ug/Kgdrywt	1	330	450	160	340
Hexachlorobutadiene	U	110	ug/Kgdrywt	1	330	450	110	340
4-Chloro-3-Methylphenol	U	220	ug/Kgdrywt	1	330	450	220	340
2,4,6-Trichlorophenol	U	210	ug/Kgdrywt	1	330	450	210	340
2,4,5-Trichlorophenol	U	210	ug/Kgdrywt	1	820	1100	210	830
2-Chloronaphthalene	U	120	ug/Kgdrywt	1	330	450	120	340
2-Nitroaniline	U	100	ug/Kgdrywt	1	820	1100	100	830
Dimethyl Phthalate	U	100	ug/Kgdrywt	1	330	450	100	340
2,6-Dinitrotoluene	U	110	ug/Kgdrywt	1	330	450	110	340
3-Nitroaniline	U	130	ug/Kgdrywt	1	820	1100	130	830
2,4-Dinitrophenol	U	510	ug/Kgdrywt	1	820	1100	510	830
4-Nitrophenol	U	420	ug/Kgdrywt	1	820	1100	420	830
Dibenzofuran	U	110	ug/Kgdrywt	1	330	450	110	340
2,4-Dinitrotoluene	U	120	ug/Kgdrywt	1	330	450	120	340
Diethylphthalate	U	110	ug/Kgdrywt	1	330	450	110	340
4-Chlorophenyl-Phenylether	U	100	ug/Kgdrywt	1	330	450	100	340
4-Nitroaniline	U	180	ug/Kgdrywt	1	820	1100	180	830
4,6-Dinitro-2-Methylphenol	U	460	ug/Kgdrywt	1	820	1100	460	830
N-Nitrosodiphenylamine	U	300	ug/Kgdrywt	1	330	450	300	340
4-Bromophenyl-Phenylether	U	120	ug/Kgdrywt	1	330	450	120	340
Hexachlorobenzene	U	110	ug/Kgdrywt	1	330	450	110	340

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-5
Client ID: 45-SB05-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 72.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	320	ug/Kgdrywt	1	820	1100	320	830
Carbazole	U	150	ug/Kgdrywt	1	330	450	150	340
Di-N-Butylphthalate	U	140	ug/Kgdrywt	1	330	450	140	340
Butylbenzylphthalate	U	130	ug/Kgdrywt	1	330	450	130	340
3,3'-Dichlorobenzidine	U	150	ug/Kgdrywt	1	330	450	150	340
Bis(2-Ethylhexyl)Phthalate	U	130	ug/Kgdrywt	1	330	450	130	340
Di-N-Octylphthalate	U	290	ug/Kgdrywt	1	330	450	290	340
1,1'-biphenyl	U	99.	ug/Kgdrywt	1	330	450	99.	340
Hexachlorocyclopentadiene	U	110	ug/Kgdrywt	1	330	450	110	340
Caprolactam	U	200	ug/Kgdrywt	1	330	450	200	340
Benzaldehyde	U	160	ug/Kgdrywt	1	330	450	160	340
Atrazine	U	120	ug/Kgdrywt	1	330	450	120	340
Acetophenone	U	240	ug/Kgdrywt	1	330	450	240	340
2-Fluorophenol		39.8	%					
Phenol-D6		39.8	%					
Nitrobenzene-d5		40.0	%					
2-Fluorobiphenyl		42.4	%					
2,4,6-Tribromophenol		43.6	%					
Terphenyl-d14		53.5	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	180	ug/Kgdrywt	1	330	380	180	290
Bis(2-Chloroethyl) Ether	U	94.	ug/Kgdrywt	1	330	380	94.	290
2-Chlorophenol	U	190	ug/Kgdrywt	1	330	380	190	290
2-Methylphenol	U	230	ug/Kgdrywt	1	330	380	230	290
2,2'-Oxybis(1-Chloropropane)	U	100	ug/Kgdrywt	1	330	380	100	290
3&4-Methylphenol	U	220	ug/Kgdrywt	1	330	380	220	290
N-Nitroso-Di-N-Propylamine	U	96.	ug/Kgdrywt	1	330	380	96.	290
Hexachloroethane	U	110	ug/Kgdrywt	1	330	380	110	290
Nitrobenzene	U	100	ug/Kgdrywt	1	330	380	100	290
Isophorone	U	87.	ug/Kgdrywt	1	330	380	87.	290
2-Nitrophenol	U	190	ug/Kgdrywt	1	330	380	190	290
2,4-Dimethylphenol	U	190	ug/Kgdrywt	1	330	380	190	290
Bis(2-Chloroethoxy) Methane	U	110	ug/Kgdrywt	1	330	380	110	290
2,4-Dichlorophenol	U	170	ug/Kgdrywt	1	330	380	170	290
4-Chloroaniline	U	140	ug/Kgdrywt	1	330	380	140	290
Hexachlorobutadiene	U	96.	ug/Kgdrywt	1	330	380	96.	290
4-Chloro-3-Methylphenol	U	190	ug/Kgdrywt	1	330	380	190	290
2,4,6-Trichlorophenol	U	180	ug/Kgdrywt	1	330	380	180	290
2,4,5-Trichlorophenol	U	180	ug/Kgdrywt	1	820	950	180	710
2-Chloronaphthalene	U	100	ug/Kgdrywt	1	330	380	100	290
2-Nitroaniline	U	87.	ug/Kgdrywt	1	820	950	87.	710
Dimethyl Phthalate	U	90.	ug/Kgdrywt	1	330	380	90.	290
2,6-Dinitrotoluene	U	92.	ug/Kgdrywt	1	330	380	92.	290
3-Nitroaniline	U	110	ug/Kgdrywt	1	820	950	110	710
2,4-Dinitrophenol	U	440	ug/Kgdrywt	1	820	950	440	710
4-Nitrophenol	U	360	ug/Kgdrywt	1	820	950	360	710
Dibenzofuran	U	92.	ug/Kgdrywt	1	330	380	92.	290
2,4-Dinitrotoluene	U	98.	ug/Kgdrywt	1	330	380	98.	290
Diethylphthalate	U	93.	ug/Kgdrywt	1	330	380	93.	290
4-Chlorophenyl-Phenylether	U	90.	ug/Kgdrywt	1	330	380	90.	290
4-Nitroaniline	U	160	ug/Kgdrywt	1	820	950	160	710
4,6-Dinitro-2-Methylphenol	U	390	ug/Kgdrywt	1	820	950	390	710
N-Nitrosodiphenylamine	U	250	ug/Kgdrywt	1	330	380	250	290
4-Bromophenyl-Phenylether	U	98.	ug/Kgdrywt	1	330	380	98.	290
Hexachlorobenzene	U	95.	ug/Kgdrywt	1	330	380	95.	290

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	270	ug/Kgdrywt	1	820	950	270	710
Carbazole	U	130	ug/Kgdrywt	1	330	380	130	290
Di-N-Butylphthalate	U	120	ug/Kgdrywt	1	330	380	120	290
Butylbenzylphthalate	U	110	ug/Kgdrywt	1	330	380	110	290
3,3'-Dichlorobenzidine	U	130	ug/Kgdrywt	1	330	380	130	290
Bis(2-Ethylhexyl)Phthalate	U	110	ug/Kgdrywt	1	330	380	110	290
Di-N-Octylphthalate	U	240	ug/Kgdrywt	1	330	380	240	290
1,1'-biphenyl	U	84.	ug/Kgdrywt	1	330	380	84.	290
Hexachlorocyclopentadiene	U	95.	ug/Kgdrywt	1	330	380	95.	290
Caprolactam	U	170	ug/Kgdrywt	1	330	380	170	290
Benzaldehyde	U	140	ug/Kgdrywt	1	330	380	140	290
Atrazine	U	100	ug/Kgdrywt	1	330	380	100	290
Acetophenone	U	210	ug/Kgdrywt	1	330	380	210	290
2-Fluorophenol		45.1	%					
Phenol-D6		43.8	%					
Nitrobenzene-d5		45.2	%					
2-Fluorobiphenyl		47.0	%					
2,4,6-Tribromophenol		48.2	%					
Terphenyl-d14		59.1	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 82.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	190	ug/Kgdrywt	1	330	400	190	300
Bis(2-Chloroethyl) Ether	U	98.	ug/Kgdrywt	1	330	400	98.	300
2-Chlorophenol	U	200	ug/Kgdrywt	1	330	400	200	300
2-Methylphenol	U	240	ug/Kgdrywt	1	330	400	240	300
2,2'-Oxybis(1-Chloropropane)	U	110	ug/Kgdrywt	1	330	400	110	300
3&4-Methylphenol	U	220	ug/Kgdrywt	1	330	400	220	300
N-Nitroso-Di-N-Propylamine	U	100	ug/Kgdrywt	1	330	400	100	300
Hexachloroethane	U	120	ug/Kgdrywt	1	330	400	120	300
Nitrobenzene	U	110	ug/Kgdrywt	1	330	400	110	300
Isophorone	U	90.	ug/Kgdrywt	1	330	400	90.	300
2-Nitrophenol	U	200	ug/Kgdrywt	1	330	400	200	300
2,4-Dimethylphenol	U	200	ug/Kgdrywt	1	330	400	200	300
Bis(2-Chloroethoxy) Methane	U	120	ug/Kgdrywt	1	330	400	120	300
2,4-Dichlorophenol	U	180	ug/Kgdrywt	1	330	400	180	300
4-Chloroaniline	U	140	ug/Kgdrywt	1	330	400	140	300
Hexachlorobutadiene	U	100	ug/Kgdrywt	1	330	400	100	300
4-Chloro-3-Methylphenol	U	200	ug/Kgdrywt	1	330	400	200	300
2,4,6-Trichlorophenol	U	190	ug/Kgdrywt	1	330	400	190	300
2,4,5-Trichlorophenol	U	190	ug/Kgdrywt	1	820	990	190	740
2-Chloronaphthalene	U	100	ug/Kgdrywt	1	330	400	100	300
2-Nitroaniline	U	90.	ug/Kgdrywt	1	820	990	90.	740
Dimethyl Phthalate	U	94.	ug/Kgdrywt	1	330	400	94.	300
2,6-Dinitrotoluene	U	95.	ug/Kgdrywt	1	330	400	95.	300
3-Nitroaniline	U	110	ug/Kgdrywt	1	820	990	110	740
2,4-Dinitrophenol	U	450	ug/Kgdrywt	1	820	990	450	740
4-Nitrophenol	U	370	ug/Kgdrywt	1	820	990	370	740
Dibenzofuran	U	95.	ug/Kgdrywt	1	330	400	95.	300
2,4-Dinitrotoluene	U	100	ug/Kgdrywt	1	330	400	100	300
Diethylphthalate	U	96.	ug/Kgdrywt	1	330	400	96.	300
4-Chlorophenyl-Phenylether	U	94.	ug/Kgdrywt	1	330	400	94.	300
4-Nitroaniline	U	160	ug/Kgdrywt	1	820	990	160	740
4,6-Dinitro-2-Methylphenol	U	410	ug/Kgdrywt	1	820	990	410	740
N-Nitrosodiphenylamine	U	260	ug/Kgdrywt	1	330	400	260	300
4-Bromophenyl-Phenylether	U	100	ug/Kgdrywt	1	330	400	100	300
Hexachlorobenzene	U	99.	ug/Kgdrywt	1	330	400	99.	300

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 82.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	280	ug/Kgdrywt	1	820	990	280	740
Carbazole	U	130	ug/Kgdrywt	1	330	400	130	300
Di-N-Butylphthalate	U	120	ug/Kgdrywt	1	330	400	120	300
Butylbenzylphthalate	U	110	ug/Kgdrywt	1	330	400	110	300
3,3'-Dichlorobenzidine	U	140	ug/Kgdrywt	1	330	400	140	300
Bis(2-Ethylhexyl)Phthalate	U	120	ug/Kgdrywt	1	330	400	120	300
Di-N-Octylphthalate	U	250	ug/Kgdrywt	1	330	400	250	300
1,1'-biphenyl	U	88.	ug/Kgdrywt	1	330	400	88.	300
Hexachlorocyclopentadiene	U	99.	ug/Kgdrywt	1	330	400	99.	300
Caprolactam	U	170	ug/Kgdrywt	1	330	400	170	300
Benzaldehyde	U	140	ug/Kgdrywt	1	330	400	140	300
Atrazine	U	110	ug/Kgdrywt	1	330	400	110	300
Acetophenone	U	210	ug/Kgdrywt	1	330	400	210	300
2-Fluorophenol		40.5	%					
Phenol-D6		40.0	%					
Nitrobenzene-d5		41.7	%					
2-Fluorobiphenyl		46.3	%					
2,4,6-Tribromophenol		39.8	%					
Terphenyl-d14		56.2	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-8
Client ID: 45-SB08-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 95.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	160	ug/Kgdrywt	1	330	340	160	260
Bis(2-Chloroethyl) Ether	U	85.	ug/Kgdrywt	1	330	340	85.	260
2-Chlorophenol	U	170	ug/Kgdrywt	1	330	340	170	260
2-Methylphenol	U	210	ug/Kgdrywt	1	330	340	210	260
2,2'-Oxybis(1-Chloropropane)	U	93.	ug/Kgdrywt	1	330	340	93.	260
3&4-Methylphenol	U	200	ug/Kgdrywt	1	330	340	200	260
N-Nitroso-Di-N-Propylamine	U	87.	ug/Kgdrywt	1	330	340	87.	260
Hexachloroethane	U	100	ug/Kgdrywt	1	330	340	100	260
Nitrobenzene	U	95.	ug/Kgdrywt	1	330	340	95.	260
Isophorone	U	78.	ug/Kgdrywt	1	330	340	78.	260
2-Nitrophenol	U	170	ug/Kgdrywt	1	330	340	170	260
2,4-Dimethylphenol	U	170	ug/Kgdrywt	1	330	340	170	260
Bis(2-Chloroethoxy) Methane	U	100	ug/Kgdrywt	1	330	340	100	260
2,4-Dichlorophenol	U	160	ug/Kgdrywt	1	330	340	160	260
4-Chloroaniline	U	120	ug/Kgdrywt	1	330	340	120	260
Hexachlorobutadiene	U	87.	ug/Kgdrywt	1	330	340	87.	260
4-Chloro-3-Methylphenol	U	170	ug/Kgdrywt	1	330	340	170	260
2,4,6-Trichlorophenol	U	160	ug/Kgdrywt	1	330	340	160	260
2,4,5-Trichlorophenol	U	160	ug/Kgdrywt	1	820	860	160	640
2-Chloronaphthalene	U	91.	ug/Kgdrywt	1	330	340	91.	260
2-Nitroaniline	U	78.	ug/Kgdrywt	1	820	860	78.	640
Dimethyl Phthalate	U	82.	ug/Kgdrywt	1	330	340	82.	260
2,6-Dinitrotoluene	U	82.	ug/Kgdrywt	1	330	340	82.	260
3-Nitroaniline	U	98.	ug/Kgdrywt	1	820	860	98.	640
2,4-Dinitrophenol	U	390	ug/Kgdrywt	1	820	860	390	640
4-Nitrophenol	U	320	ug/Kgdrywt	1	820	860	320	640
Dibenzofuran	U	82.	ug/Kgdrywt	1	330	340	82.	260
2,4-Dinitrotoluene	U	89.	ug/Kgdrywt	1	330	340	89.	260
Diethylphthalate	U	84.	ug/Kgdrywt	1	330	340	84.	260
4-Chlorophenyl-Phenylether	U	82.	ug/Kgdrywt	1	330	340	82.	260
4-Nitroaniline	U	140	ug/Kgdrywt	1	820	860	140	640
4,6-Dinitro-2-Methylphenol	U	350	ug/Kgdrywt	1	820	860	350	640
N-Nitrosodiphenylamine	U	230	ug/Kgdrywt	1	330	340	230	260
4-Bromophenyl-Phenylether	U	89.	ug/Kgdrywt	1	330	340	89.	260
Hexachlorobenzene	U	86.	ug/Kgdrywt	1	330	340	86.	260

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-8
Client ID: 45-SB08-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 95.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	250	ug/Kgdrywt	1	820	860	250	640
Carbazole	U	120	ug/Kgdrywt	1	330	340	120	260
Di-N-Butylphthalate	U	100	ug/Kgdrywt	1	330	340	100	260
Butylbenzylphthalate	U	97.	ug/Kgdrywt	1	330	340	97.	260
3,3'-Dichlorobenzidine	U	120	ug/Kgdrywt	1	330	340	120	260
Bis(2-Ethylhexyl)Phthalate	U	100	ug/Kgdrywt	1	330	340	100	260
Di-N-Octylphthalate	U	220	ug/Kgdrywt	1	330	340	220	260
1,1'-biphenyl	U	76.	ug/Kgdrywt	1	330	340	76.	260
Hexachlorocyclopentadiene	U	86.	ug/Kgdrywt	1	330	340	86.	260
Caprolactam	U	150	ug/Kgdrywt	1	330	340	150	260
Benzaldehyde	U	120	ug/Kgdrywt	1	330	340	120	260
Atrazine	U	95.	ug/Kgdrywt	1	330	340	95.	260
Acetophenone	U	190	ug/Kgdrywt	1	330	340	190	260
2-Fluorophenol		51.1	%					
Phenol-D6		51.7	%					
Nitrobenzene-d5		49.0	%					
2-Fluorobiphenyl		49.1	%					
2,4,6-Tribromophenol		52.0	%					
Terphenyl-d14		67.2	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	180	ug/Kgdrywt	1	330	370	180	280
Bis(2-Chloroethyl) Ether	U	92.	ug/Kgdrywt	1	330	370	92.	280
2-Chlorophenol	U	180	ug/Kgdrywt	1	330	370	180	280
2-Methylphenol	U	230	ug/Kgdrywt	1	330	370	230	280
2,2'-Oxybis(1-Chloropropane)	U	100	ug/Kgdrywt	1	330	370	100	280
3&4-Methylphenol	U	210	ug/Kgdrywt	1	330	370	210	280
N-Nitroso-Di-N-Propylamine	U	94.	ug/Kgdrywt	1	330	370	94.	280
Hexachloroethane	U	110	ug/Kgdrywt	1	330	370	110	280
Nitrobenzene	U	100	ug/Kgdrywt	1	330	370	100	280
Isophorone	U	85.	ug/Kgdrywt	1	330	370	85.	280
2-Nitrophenol	U	190	ug/Kgdrywt	1	330	370	190	280
2,4-Dimethylphenol	U	190	ug/Kgdrywt	1	330	370	190	280
Bis(2-Chloroethoxy) Methane	U	110	ug/Kgdrywt	1	330	370	110	280
2,4-Dichlorophenol	U	170	ug/Kgdrywt	1	330	370	170	280
4-Chloroaniline	U	130	ug/Kgdrywt	1	330	370	130	280
Hexachlorobutadiene	U	94.	ug/Kgdrywt	1	330	370	94.	280
4-Chloro-3-Methylphenol	U	190	ug/Kgdrywt	1	330	370	190	280
2,4,6-Trichlorophenol	U	180	ug/Kgdrywt	1	330	370	180	280
2,4,5-Trichlorophenol	U	180	ug/Kgdrywt	1	820	930	180	700
2-Chloronaphthalene	U	98.	ug/Kgdrywt	1	330	370	98.	280
2-Nitroaniline	U	85.	ug/Kgdrywt	1	820	930	85.	700
Dimethyl Phthalate	U	88.	ug/Kgdrywt	1	330	370	88.	280
2,6-Dinitrotoluene	U	89.	ug/Kgdrywt	1	330	370	89.	280
3-Nitroaniline	U	110	ug/Kgdrywt	1	820	930	110	700
2,4-Dinitrophenol	U	430	ug/Kgdrywt	1	820	930	430	700
4-Nitrophenol	U	350	ug/Kgdrywt	1	820	930	350	700
Dibenzofuran	U	89.	ug/Kgdrywt	1	330	370	89.	280
2,4-Dinitrotoluene	U	96.	ug/Kgdrywt	1	330	370	96.	280
Diethylphthalate	U	90.	ug/Kgdrywt	1	330	370	90.	280
4-Chlorophenyl-Phenylether	U	88.	ug/Kgdrywt	1	330	370	88.	280
4-Nitroaniline	U	150	ug/Kgdrywt	1	820	930	150	700
4,6-Dinitro-2-Methylphenol	U	380	ug/Kgdrywt	1	820	930	380	700
N-Nitrosodiphenylamine	U	250	ug/Kgdrywt	1	330	370	250	280
4-Bromophenyl-Phenylether	U	96.	ug/Kgdrywt	1	330	370	96.	280
Hexachlorobenzene	U	93.	ug/Kgdrywt	1	330	370	93.	280

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	270	ug/Kgdrywt	1	820	930	270	700
Carbazole	U	120	ug/Kgdrywt	1	330	370	120	280
Di-N-Butylphthalate	U	110	ug/Kgdrywt	1	330	370	110	280
Butylbenzylphthalate	U	100	ug/Kgdrywt	1	330	370	100	280
3,3'-Dichlorobenzidine	U	130	ug/Kgdrywt	1	330	370	130	280
Bis(2-Ethylhexyl)Phthalate	U	110	ug/Kgdrywt	1	330	370	110	280
Di-N-Octylphthalate	U	240	ug/Kgdrywt	1	330	370	240	280
1,1'-biphenyl	U	83.	ug/Kgdrywt	1	330	370	83.	280
Hexachlorocyclopentadiene	U	93.	ug/Kgdrywt	1	330	370	93.	280
Caprolactam	U	160	ug/Kgdrywt	1	330	370	160	280
Benzaldehyde	U	140	ug/Kgdrywt	1	330	370	140	280
Atrazine	U	100	ug/Kgdrywt	1	330	370	100	280
Acetophenone	U	200	ug/Kgdrywt	1	330	370	200	280
2-Fluorophenol		43.5	%					
Phenol-D6		43.0	%					
Nitrobenzene-d5		44.2	%					
2-Fluorobiphenyl		45.3	%					
2,4,6-Tribromophenol		42.4	%					
Terphenyl-d14		57.1	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-10
Client ID: 45-SB10-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 82.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	170	ug/Kgdrywt	1	330	370	170	280
Bis(2-Chloroethyl) Ether	U	90.	ug/Kgdrywt	1	330	370	90.	280
2-Chlorophenol	U	180	ug/Kgdrywt	1	330	370	180	280
2-Methylphenol	U	220	ug/Kgdrywt	1	330	370	220	280
2,2'-Oxybis(1-Chloropropane)	U	100	ug/Kgdrywt	1	330	370	100	280
3&4-Methylphenol	U	210	ug/Kgdrywt	1	330	370	210	280
N-Nitroso-Di-N-Propylamine	U	93.	ug/Kgdrywt	1	330	370	93.	280
Hexachloroethane	U	110	ug/Kgdrywt	1	330	370	110	280
Nitrobenzene	U	100	ug/Kgdrywt	1	330	370	100	280
Isophorone	U	84.	ug/Kgdrywt	1	330	370	84.	280
2-Nitrophenol	U	190	ug/Kgdrywt	1	330	370	190	280
2,4-Dimethylphenol	U	180	ug/Kgdrywt	1	330	370	180	280
Bis(2-Chloroethoxy) Methane	U	110	ug/Kgdrywt	1	330	370	110	280
2,4-Dichlorophenol	U	170	ug/Kgdrywt	1	330	370	170	280
4-Chloroaniline	U	130	ug/Kgdrywt	1	330	370	130	280
Hexachlorobutadiene	U	93.	ug/Kgdrywt	1	330	370	93.	280
4-Chloro-3-Methylphenol	U	180	ug/Kgdrywt	1	330	370	180	280
2,4,6-Trichlorophenol	U	170	ug/Kgdrywt	1	330	370	170	280
2,4,5-Trichlorophenol	U	170	ug/Kgdrywt	1	820	920	170	690
2-Chloronaphthalene	U	97.	ug/Kgdrywt	1	330	370	97.	280
2-Nitroaniline	U	84.	ug/Kgdrywt	1	820	920	84.	690
Dimethyl Phthalate	U	87.	ug/Kgdrywt	1	330	370	87.	280
2,6-Dinitrotoluene	U	88.	ug/Kgdrywt	1	330	370	88.	280
3-Nitroaniline	U	100	ug/Kgdrywt	1	820	920	100	690
2,4-Dinitrophenol	U	420	ug/Kgdrywt	1	820	920	420	690
4-Nitrophenol	U	340	ug/Kgdrywt	1	820	920	340	690
Dibenzofuran	U	88.	ug/Kgdrywt	1	330	370	88.	280
2,4-Dinitrotoluene	U	95.	ug/Kgdrywt	1	330	370	95.	280
Diethylphthalate	U	89.	ug/Kgdrywt	1	330	370	89.	280
4-Chlorophenyl-Phenylether	U	87.	ug/Kgdrywt	1	330	370	87.	280
4-Nitroaniline	U	150	ug/Kgdrywt	1	820	920	150	690
4,6-Dinitro-2-Methylphenol	U	380	ug/Kgdrywt	1	820	920	380	690
N-Nitrosodiphenylamine	U	240	ug/Kgdrywt	1	330	370	240	280
4-Bromophenyl-Phenylether	U	95.	ug/Kgdrywt	1	330	370	95.	280
Hexachlorobenzene	U	92.	ug/Kgdrywt	1	330	370	92.	280

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-10
Client ID: 45-SB10-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 82.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	260	ug/Kgdrywt	1	820	920	260	690
Carbazole	U	120	ug/Kgdrywt	1	330	370	120	280
Di-N-Butylphthalate	U	110	ug/Kgdrywt	1	330	370	110	280
Butylbenzylphthalate	U	100	ug/Kgdrywt	1	330	370	100	280
3,3'-Dichlorobenzidine	U	130	ug/Kgdrywt	1	330	370	130	280
Bis(2-Ethylhexyl)Phthalate	U	110	ug/Kgdrywt	1	330	370	110	280
Di-N-Octylphthalate	U	240	ug/Kgdrywt	1	330	370	240	280
1,1'-biphenyl	U	82.	ug/Kgdrywt	1	330	370	82.	280
Hexachlorocyclopentadiene	U	92.	ug/Kgdrywt	1	330	370	92.	280
Caprolactam	U	160	ug/Kgdrywt	1	330	370	160	280
Benzaldehyde	U	130	ug/Kgdrywt	1	330	370	130	280
Atrazine	U	100	ug/Kgdrywt	1	330	370	100	280
Acetophenone	U	200	ug/Kgdrywt	1	330	370	200	280
2-Fluorophenol		41.0	%					
Phenol-D6		40.8	%					
Nitrobenzene-d5		42.7	%					
2-Fluorobiphenyl		42.6	%					
2,4,6-Tribromophenol		43.2	%					
Terphenyl-d14		58.1	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 83.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	180	ug/Kgdrywt	1	330	380	180	290
Bis(2-Chloroethyl) Ether	U	94.	ug/Kgdrywt	1	330	380	94.	290
2-Chlorophenol	U	190	ug/Kgdrywt	1	330	380	190	290
2-Methylphenol	U	230	ug/Kgdrywt	1	330	380	230	290
2,2'-Oxybis(1-Chloropropane)	U	100	ug/Kgdrywt	1	330	380	100	290
3&4-Methylphenol	U	220	ug/Kgdrywt	1	330	380	220	290
N-Nitroso-Di-N-Propylamine	U	97.	ug/Kgdrywt	1	330	380	97.	290
Hexachloroethane	U	110	ug/Kgdrywt	1	330	380	110	290
Nitrobenzene	U	110	ug/Kgdrywt	1	330	380	110	290
Isophorone	U	88.	ug/Kgdrywt	1	330	380	88.	290
2-Nitrophenol	U	190	ug/Kgdrywt	1	330	380	190	290
2,4-Dimethylphenol	U	190	ug/Kgdrywt	1	330	380	190	290
Bis(2-Chloroethoxy) Methane	U	110	ug/Kgdrywt	1	330	380	110	290
2,4-Dichlorophenol	U	180	ug/Kgdrywt	1	330	380	180	290
4-Chloroaniline	U	140	ug/Kgdrywt	1	330	380	140	290
Hexachlorobutadiene	U	97.	ug/Kgdrywt	1	330	380	97.	290
4-Chloro-3-Methylphenol	U	190	ug/Kgdrywt	1	330	380	190	290
2,4,6-Trichlorophenol	U	180	ug/Kgdrywt	1	330	380	180	290
2,4,5-Trichlorophenol	U	180	ug/Kgdrywt	1	820	960	180	720
2-Chloronaphthalene	U	100	ug/Kgdrywt	1	330	380	100	290
2-Nitroaniline	U	88.	ug/Kgdrywt	1	820	960	88.	720
Dimethyl Phthalate	U	91.	ug/Kgdrywt	1	330	380	91.	290
2,6-Dinitrotoluene	U	92.	ug/Kgdrywt	1	330	380	92.	290
3-Nitroaniline	U	110	ug/Kgdrywt	1	820	960	110	720
2,4-Dinitrophenol	U	440	ug/Kgdrywt	1	820	960	440	720
4-Nitrophenol	U	360	ug/Kgdrywt	1	820	960	360	720
Dibenzofuran	U	92.	ug/Kgdrywt	1	330	380	92.	290
2,4-Dinitrotoluene	U	99.	ug/Kgdrywt	1	330	380	99.	290
Diethylphthalate	U	93.	ug/Kgdrywt	1	330	380	93.	290
4-Chlorophenyl-Phenylether	U	91.	ug/Kgdrywt	1	330	380	91.	290
4-Nitroaniline	U	160	ug/Kgdrywt	1	820	960	160	720
4,6-Dinitro-2-Methylphenol	U	390	ug/Kgdrywt	1	820	960	390	720
N-Nitrosodiphenylamine	U	260	ug/Kgdrywt	1	330	380	260	290
4-Bromophenyl-Phenylether	U	99.	ug/Kgdrywt	1	330	380	99.	290
Hexachlorobenzene	U	96.	ug/Kgdrywt	1	330	380	96.	290

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 83.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	280	ug/Kgdrywt	1	820	960	280	720
Carbazole	U	130	ug/Kgdrywt	1	330	380	130	290
Di-N-Butylphthalate	U	120	ug/Kgdrywt	1	330	380	120	290
Butylbenzylphthalate	U	110	ug/Kgdrywt	1	330	380	110	290
3,3'-Dichlorobenzidine	U	130	ug/Kgdrywt	1	330	380	130	290
Bis(2-Ethylhexyl)Phthalate	I	220	ug/Kgdrywt	1	330	380	110	290
Di-N-Octylphthalate	U	250	ug/Kgdrywt	1	330	380	250	290
1,1'-biphenyl	U	85.	ug/Kgdrywt	1	330	380	85.	290
Hexachlorocyclopentadiene	U	96.	ug/Kgdrywt	1	330	380	96.	290
Caprolactam	U	170	ug/Kgdrywt	1	330	380	170	290
Benzaldehyde	U	140	ug/Kgdrywt	1	330	380	140	290
Atrazine	U	110	ug/Kgdrywt	1	330	380	110	290
Acetophenone	U	210	ug/Kgdrywt	1	330	380	210	290
2-Fluorophenol		37.0	%					
Phenol-D6		35.0	%					
Nitrobenzene-d5		36.8	%					
2-Fluorobiphenyl		38.2	%					
2,4,6-Tribromophenol		37.5	%					
Terphenyl-d14		51.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-12
Client ID: 45-SB12-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 93.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	170	ug/Kgdrywt	1	330	350	170	260
Bis(2-Chloroethyl) Ether	U	87.	ug/Kgdrywt	1	330	350	87.	260
2-Chlorophenol	U	180	ug/Kgdrywt	1	330	350	180	260
2-Methylphenol	U	210	ug/Kgdrywt	1	330	350	210	260
2,2'-Oxybis(1-Chloropropane)	U	95.	ug/Kgdrywt	1	330	350	95.	260
3&4-Methylphenol	U	200	ug/Kgdrywt	1	330	350	200	260
N-Nitroso-Di-N-Propylamine	U	89.	ug/Kgdrywt	1	330	350	89.	260
Hexachloroethane	U	100	ug/Kgdrywt	1	330	350	100	260
Nitrobenzene	U	98.	ug/Kgdrywt	1	330	350	98.	260
Isophorone	U	80.	ug/Kgdrywt	1	330	350	80.	260
2-Nitrophenol	U	180	ug/Kgdrywt	1	330	350	180	260
2,4-Dimethylphenol	U	180	ug/Kgdrywt	1	330	350	180	260
Bis(2-Chloroethoxy) Methane	U	100	ug/Kgdrywt	1	330	350	100	260
2,4-Dichlorophenol	U	160	ug/Kgdrywt	1	330	350	160	260
4-Chloroaniline	U	130	ug/Kgdrywt	1	330	350	130	260
Hexachlorobutadiene	U	89.	ug/Kgdrywt	1	330	350	89.	260
4-Chloro-3-Methylphenol	U	180	ug/Kgdrywt	1	330	350	180	260
2,4,6-Trichlorophenol	U	170	ug/Kgdrywt	1	330	350	170	260
2,4,5-Trichlorophenol	U	170	ug/Kgdrywt	1	820	880	170	660
2-Chloronaphthalene	U	93.	ug/Kgdrywt	1	330	350	93.	260
2-Nitroaniline	U	80.	ug/Kgdrywt	1	820	880	80.	660
Dimethyl Phthalate	U	84.	ug/Kgdrywt	1	330	350	84.	260
2,6-Dinitrotoluene	U	85.	ug/Kgdrywt	1	330	350	85.	260
3-Nitroaniline	U	100	ug/Kgdrywt	1	820	880	100	660
2,4-Dinitrophenol	U	400	ug/Kgdrywt	1	820	880	400	660
4-Nitrophenol	U	330	ug/Kgdrywt	1	820	880	330	660
Dibenzofuran	U	85.	ug/Kgdrywt	1	330	350	85.	260
2,4-Dinitrotoluene	U	91.	ug/Kgdrywt	1	330	350	91.	260
Diethylphthalate	U	86.	ug/Kgdrywt	1	330	350	86.	260
4-Chlorophenyl-Phenylether	U	84.	ug/Kgdrywt	1	330	350	84.	260
4-Nitroaniline	U	140	ug/Kgdrywt	1	820	880	140	660
4,6-Dinitro-2-Methylphenol	U	360	ug/Kgdrywt	1	820	880	360	660
N-Nitrosodiphenylamine	U	230	ug/Kgdrywt	1	330	350	230	260
4-Bromophenyl-Phenylether	U	91.	ug/Kgdrywt	1	330	350	91.	260
Hexachlorobenzene	U	88.	ug/Kgdrywt	1	330	350	88.	260

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-12
Client ID: 45-SB12-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 93.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	250	ug/Kgdrywt	1	820	880	250	660
Carbazole	U	120	ug/Kgdrywt	1	330	350	120	260
Di-N-Butylphthalate	U	110	ug/Kgdrywt	1	330	350	110	260
Butylbenzylphthalate	U	100	ug/Kgdrywt	1	330	350	100	260
3,3'-Dichlorobenzidine	U	120	ug/Kgdrywt	1	330	350	120	260
Bis(2-Ethylhexyl)Phthalate	U	100	ug/Kgdrywt	1	330	350	100	260
Di-N-Octylphthalate	U	230	ug/Kgdrywt	1	330	350	230	260
1,1'-biphenyl	U	78.	ug/Kgdrywt	1	330	350	78.	260
Hexachlorocyclopentadiene	U	88.	ug/Kgdrywt	1	330	350	88.	260
Caprolactam	U	150	ug/Kgdrywt	1	330	350	150	260
Benzaldehyde	U	130	ug/Kgdrywt	1	330	350	130	260
Atrazine	U	98.	ug/Kgdrywt	1	330	350	98.	260
Acetophenone	U	190	ug/Kgdrywt	1	330	350	190	260
2-Fluorophenol		37.8	%					
Phenol-D6		38.1	%					
Nitrobenzene-d5		34.8	%					
2-Fluorobiphenyl		45.1	%					
2,4,6-Tribromophenol		45.4	%					
Terphenyl-d14		57.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 80.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	180	ug/Kgdrywt	1	330	390	180	290
Bis(2-Chloroethyl) Ether	U	96.	ug/Kgdrywt	1	330	390	96.	290
2-Chlorophenol	U	190	ug/Kgdrywt	1	330	390	190	290
2-Methylphenol	U	240	ug/Kgdrywt	1	330	390	240	290
2,2'-Oxybis(1-Chloropropane)	U	100	ug/Kgdrywt	1	330	390	100	290
3&4-Methylphenol	U	220	ug/Kgdrywt	1	330	390	220	290
N-Nitroso-Di-N-Propylamine	U	98.	ug/Kgdrywt	1	330	390	98.	290
Hexachloroethane	U	110	ug/Kgdrywt	1	330	390	110	290
Nitrobenzene	U	110	ug/Kgdrywt	1	330	390	110	290
Isophorone	U	89.	ug/Kgdrywt	1	330	390	89.	290
2-Nitrophenol	U	200	ug/Kgdrywt	1	330	390	200	290
2,4-Dimethylphenol	U	200	ug/Kgdrywt	1	330	390	200	290
Bis(2-Chloroethoxy) Methane	U	110	ug/Kgdrywt	1	330	390	110	290
2,4-Dichlorophenol	U	180	ug/Kgdrywt	1	330	390	180	290
4-Chloroaniline	U	140	ug/Kgdrywt	1	330	390	140	290
Hexachlorobutadiene	U	98.	ug/Kgdrywt	1	330	390	98.	290
4-Chloro-3-Methylphenol	U	200	ug/Kgdrywt	1	330	390	200	290
2,4,6-Trichlorophenol	U	180	ug/Kgdrywt	1	330	390	180	290
2,4,5-Trichlorophenol	U	180	ug/Kgdrywt	1	820	970	180	730
2-Chloronaphthalene	U	100	ug/Kgdrywt	1	330	390	100	290
2-Nitroaniline	U	89.	ug/Kgdrywt	1	820	970	89.	730
Dimethyl Phthalate	U	92.	ug/Kgdrywt	1	330	390	92.	290
2,6-Dinitrotoluene	U	94.	ug/Kgdrywt	1	330	390	94.	290
3-Nitroaniline	U	110	ug/Kgdrywt	1	820	970	110	730
2,4-Dinitrophenol	U	450	ug/Kgdrywt	1	820	970	450	730
4-Nitrophenol	U	370	ug/Kgdrywt	1	820	970	370	730
Dibenzofuran	U	94.	ug/Kgdrywt	1	330	390	94.	290
2,4-Dinitrotoluene	U	100	ug/Kgdrywt	1	330	390	100	290
Diethylphthalate	U	95.	ug/Kgdrywt	1	330	390	95.	290
4-Chlorophenyl-Phenylether	U	92.	ug/Kgdrywt	1	330	390	92.	290
4-Nitroaniline	U	160	ug/Kgdrywt	1	820	970	160	730
4,6-Dinitro-2-Methylphenol	U	400	ug/Kgdrywt	1	820	970	400	730
N-Nitrosodiphenylamine	U	260	ug/Kgdrywt	1	330	390	260	290
4-Bromophenyl-Phenylether	U	100	ug/Kgdrywt	1	330	390	100	290
Hexachlorobenzene	U	97.	ug/Kgdrywt	1	330	390	97.	290

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 30-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 80.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	280	ug/Kgdrywt	1	820	970	280	730
Carbazole	U	130	ug/Kgdrywt	1	330	390	130	290
Di-N-Butylphthalate	U	120	ug/Kgdrywt	1	330	390	120	290
Butylbenzylphthalate	U	110	ug/Kgdrywt	1	330	390	110	290
3,3'-Dichlorobenzidine	U	140	ug/Kgdrywt	1	330	390	140	290
Bis(2-Ethylhexyl)Phthalate	U	120	ug/Kgdrywt	1	330	390	120	290
Di-N-Octylphthalate	U	250	ug/Kgdrywt	1	330	390	250	290
1,1'-biphenyl	U	86.	ug/Kgdrywt	1	330	390	86.	290
Hexachlorocyclopentadiene	U	97.	ug/Kgdrywt	1	330	390	97.	290
Caprolactam	U	170	ug/Kgdrywt	1	330	390	170	290
Benzaldehyde	U	140	ug/Kgdrywt	1	330	390	140	290
Atrazine	U	110	ug/Kgdrywt	1	330	390	110	290
Acetophenone	U	210	ug/Kgdrywt	1	330	390	210	290
2-Fluorophenol		38.2	%					
Phenol-D6		40.5	%					
Nitrobenzene-d5		40.5	%					
2-Fluorobiphenyl		45.4	%					
2,4,6-Tribromophenol		44.6	%					
Terphenyl-d14		57.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-15
Client ID: 45-SB14-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	180	ug/Kgdrywt	1	330	380	180	290
Bis(2-Chloroethyl) Ether	U	94.	ug/Kgdrywt	1	330	380	94.	290
2-Chlorophenol	U	190	ug/Kgdrywt	1	330	380	190	290
2-Methylphenol	U	230	ug/Kgdrywt	1	330	380	230	290
2,2'-Oxybis(1-Chloropropane)	U	100	ug/Kgdrywt	1	330	380	100	290
3&4-Methylphenol	U	220	ug/Kgdrywt	1	330	380	220	290
N-Nitroso-Di-N-Propylamine	U	96.	ug/Kgdrywt	1	330	380	96.	290
Hexachloroethane	U	110	ug/Kgdrywt	1	330	380	110	290
Nitrobenzene	U	100	ug/Kgdrywt	1	330	380	100	290
Isophorone	U	87.	ug/Kgdrywt	1	330	380	87.	290
2-Nitrophenol	U	190	ug/Kgdrywt	1	330	380	190	290
2,4-Dimethylphenol	U	190	ug/Kgdrywt	1	330	380	190	290
Bis(2-Chloroethoxy) Methane	U	110	ug/Kgdrywt	1	330	380	110	290
2,4-Dichlorophenol	U	170	ug/Kgdrywt	1	330	380	170	290
4-Chloroaniline	U	140	ug/Kgdrywt	1	330	380	140	290
Hexachlorobutadiene	U	96.	ug/Kgdrywt	1	330	380	96.	290
4-Chloro-3-Methylphenol	U	190	ug/Kgdrywt	1	330	380	190	290
2,4,6-Trichlorophenol	U	180	ug/Kgdrywt	1	330	380	180	290
2,4,5-Trichlorophenol	U	180	ug/Kgdrywt	1	820	950	180	710
2-Chloronaphthalene	U	100	ug/Kgdrywt	1	330	380	100	290
2-Nitroaniline	U	87.	ug/Kgdrywt	1	820	950	87.	710
Dimethyl Phthalate	U	90.	ug/Kgdrywt	1	330	380	90.	290
2,6-Dinitrotoluene	U	92.	ug/Kgdrywt	1	330	380	92.	290
3-Nitroaniline	U	110	ug/Kgdrywt	1	820	950	110	710
2,4-Dinitrophenol	U	440	ug/Kgdrywt	1	820	950	440	710
4-Nitrophenol	U	360	ug/Kgdrywt	1	820	950	360	710
Dibenzofuran	U	92.	ug/Kgdrywt	1	330	380	92.	290
2,4-Dinitrotoluene	U	98.	ug/Kgdrywt	1	330	380	98.	290
Diethylphthalate	U	93.	ug/Kgdrywt	1	330	380	93.	290
4-Chlorophenyl-Phenylether	U	90.	ug/Kgdrywt	1	330	380	90.	290
4-Nitroaniline	U	160	ug/Kgdrywt	1	820	950	160	710
4,6-Dinitro-2-Methylphenol	U	390	ug/Kgdrywt	1	820	950	390	710
N-Nitrosodiphenylamine	U	250	ug/Kgdrywt	1	330	380	250	290
4-Bromophenyl-Phenylether	U	98.	ug/Kgdrywt	1	330	380	98.	290
Hexachlorobenzene	U	95.	ug/Kgdrywt	1	330	380	95.	290

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-15
Client ID: 45-SB14-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Pentachlorophenol	U	270	ug/Kgdrywt	1	820	950	270	710
Carbazole	U	130	ug/Kgdrywt	1	330	380	130	290
Di-N-Butylphthalate	U	120	ug/Kgdrywt	1	330	380	120	290
Butylbenzylphthalate	U	110	ug/Kgdrywt	1	330	380	110	290
3,3'-Dichlorobenzidine	U	130	ug/Kgdrywt	1	330	380	130	290
Bis(2-Ethylhexyl)Phthalate	U	110	ug/Kgdrywt	1	330	380	110	290
Di-N-Octylphthalate	U	240	ug/Kgdrywt	1	330	380	240	290
1,1'-biphenyl	U	85.	ug/Kgdrywt	1	330	380	85.	290
Hexachlorocyclopentadiene	U	95.	ug/Kgdrywt	1	330	380	95.	290
Caprolactam	U	170	ug/Kgdrywt	1	330	380	170	290
Benzaldehyde	U	140	ug/Kgdrywt	1	330	380	140	290
Atrazine	U	100	ug/Kgdrywt	1	330	380	100	290
Acetophenone	U	210	ug/Kgdrywt	1	330	380	210	290
2-Fluorophenol		41.2	%					
Phenol-D6		40.9	%					
Nitrobenzene-d5		42.0	%					
2-Fluorobiphenyl		42.3	%					
2,4,6-Tribromophenol		42.5	%					
Terphenyl-d14		61.6	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 93.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	6.4	ug/Kgdrywt	1	17	18.	6.4	9.0
Aroclor-1221	U	8.4	ug/Kgdrywt	1	17	18.	8.4	9.0
Aroclor-1232	U	9.9	ug/Kgdrywt	1	17	18.	9.9	11.
Aroclor-1242	U	6.2	ug/Kgdrywt	1	17	18.	6.2	9.0
Aroclor-1248	U	6.5	ug/Kgdrywt	1	17	18.	6.5	9.0
Aroclor-1254	U	5.0	ug/Kgdrywt	1	17	18.	5.0	9.0
Aroclor-1260	U	6.4	ug/Kgdrywt	1	17	18.	6.4	9.0
Tetrachloro-M-Xylene		86.2	%					
Decachlorobiphenyl		85.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-5
Client ID: 45-SB05-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 28-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 72.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	8.0	ug/Kgdrywt	1	17	22.	8.0	11.
Aroclor-1221	U	10.	ug/Kgdrywt	1	17	22.	10.	11.
Aroclor-1232	U	12.	ug/Kgdrywt	1	17	22.	12.	13.
Aroclor-1242	U	7.7	ug/Kgdrywt	1	17	22.	7.7	11.
Aroclor-1248	U	8.1	ug/Kgdrywt	1	17	22.	8.1	11.
Aroclor-1254	U	6.2	ug/Kgdrywt	1	17	22.	6.2	11.
Aroclor-1260	U	8.0	ug/Kgdrywt	1	17	22.	8.0	11.
Tetrachloro-M-Xylene	J	48.8	%					
Decachlorobiphenyl		61.9	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 28-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	6.7	ug/Kgdrywt	1	17	19.	6.7	9.5
Aroclor-1221	U	8.8	ug/Kgdrywt	1	17	19.	8.8	9.5
Aroclor-1232	U	10.	ug/Kgdrywt	1	17	19.	10.	11.
Aroclor-1242	U	6.5	ug/Kgdrywt	1	17	19.	6.5	9.5
Aroclor-1248	U	6.8	ug/Kgdrywt	1	17	19.	6.8	9.5
Aroclor-1254	U	5.2	ug/Kgdrywt	1	17	19.	5.2	9.5
Aroclor-1260	U	6.7	ug/Kgdrywt	1	17	19.	6.7	9.5
Tetrachloro-M-Xylene		56.3	%					
Decachlorobiphenyl		78.2	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 28-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 82.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	7.2	ug/Kgdrywt	1	17	20.	7.2	10.
Aroclor-1221	U	9.5	ug/Kgdrywt	1	17	20.	9.5	10.
Aroclor-1232	U	11.	ug/Kgdrywt	1	17	20.	11.	12.
Aroclor-1242	U	7.0	ug/Kgdrywt	1	17	20.	7.0	10.
Aroclor-1248	U	7.3	ug/Kgdrywt	1	17	20.	7.3	10.
Aroclor-1254	U	5.6	ug/Kgdrywt	1	17	20.	5.6	10.
Aroclor-1260	U	7.2	ug/Kgdrywt	1	17	20.	7.2	10.
Tetrachloro-M-Xylene		86.2	%					
Decachlorobiphenyl		106.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-8
Client ID: 45-SB08-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 95.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	6.2	ug/Kgdrywt	1	17	18.	6.2	8.8
Aroclor-1221	U	8.2	ug/Kgdrywt	1	17	18.	8.2	8.8
Aroclor-1232	U	9.7	ug/Kgdrywt	1	17	18.	9.7	10.
Aroclor-1242	U	6.0	ug/Kgdrywt	1	17	18.	6.0	8.8
Aroclor-1248	U	6.4	ug/Kgdrywt	1	17	18.	6.4	8.8
Aroclor-1254	U	4.9	ug/Kgdrywt	1	17	18.	4.9	8.8
Aroclor-1260	U	6.2	ug/Kgdrywt	1	17	18.	6.2	8.8
Tetrachloro-M-Xylene		61.1	%					
Decachlorobiphenyl		89.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	6.8	ug/Kgdrywt	1	17	19.	6.8	9.7
Aroclor-1221	U	9.0	ug/Kgdrywt	1	17	19.	9.0	9.7
Aroclor-1232	U	10.	ug/Kgdrywt	1	17	19.	10.	11.
Aroclor-1242	U	6.6	ug/Kgdrywt	1	17	19.	6.6	9.7
Aroclor-1248	U	6.9	ug/Kgdrywt	1	17	19.	6.9	9.7
Aroclor-1254	U	5.4	ug/Kgdrywt	1	17	19.	5.4	9.7
Aroclor-1260	U	6.8	ug/Kgdrywt	1	17	19.	6.8	9.7
Tetrachloro-M-Xylene		70.2	%					
Decachlorobiphenyl		89.4	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-10
Client ID: 45-SB10-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 82.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	6.6	ug/Kgdrywt	1	17	19.	6.6	9.3
Aroclor-1221	U	8.6	ug/Kgdrywt	1	17	19.	8.6	9.3
Aroclor-1232	U	10.	ug/Kgdrywt	1	17	19.	10.	11.
Aroclor-1242	U	6.4	ug/Kgdrywt	1	17	19.	6.4	9.3
Aroclor-1248	U	6.7	ug/Kgdrywt	1	17	19.	6.7	9.3
Aroclor-1254	U	5.1	ug/Kgdrywt	1	17	19.	5.1	9.3
Aroclor-1260	U	6.6	ug/Kgdrywt	1	17	19.	6.6	9.3
Tetrachloro-M-Xylene		59.2	%					
Decachlorobiphenyl		75.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 83.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	7.0	ug/Kgdrywt	1	17	20.	7.0	9.9
Aroclor-1221	U	9.2	ug/Kgdrywt	1	17	20.	9.2	9.9
Aroclor-1232	U	11.	ug/Kgdrywt	1	17	20.	11.	12.
Aroclor-1242	U	6.8	ug/Kgdrywt	1	17	20.	6.8	9.9
Aroclor-1248	U	7.1	ug/Kgdrywt	1	17	20.	7.1	9.9
Aroclor-1254	U	5.5	ug/Kgdrywt	1	17	20.	5.5	9.9
Aroclor-1260	U	7.0	ug/Kgdrywt	1	17	20.	7.0	9.9
Tetrachloro-M-Xylene		72.2	%					
Decachlorobiphenyl		89.7	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-12
Client ID: 45-SB12-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 93.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	5.9	ug/Kgdrywt	1	17	17.	5.9	8.4
Aroclor-1221	U	7.8	ug/Kgdrywt	1	17	17.	7.8	8.4
Aroclor-1232	U	9.2	ug/Kgdrywt	1	17	17.	9.2	9.9
Aroclor-1242	U	5.7	ug/Kgdrywt	1	17	17.	5.7	8.4
Aroclor-1248	U	6.0	ug/Kgdrywt	1	17	17.	6.0	8.4
Aroclor-1254	U	4.6	ug/Kgdrywt	1	17	17.	4.6	8.4
Aroclor-1260	U	5.9	ug/Kgdrywt	1	17	17.	5.9	8.4
Tetrachloro-M-Xylene		91.5	%					
Decachlorobiphenyl		92.4	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 80.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	7.2	ug/Kgdrywt	1	17	20.	7.2	10.
Aroclor-1221	U	9.5	ug/Kgdrywt	1	17	20.	9.5	10.
Aroclor-1232	U	11.	ug/Kgdrywt	1	17	20.	11.	12.
Aroclor-1242	U	7.0	ug/Kgdrywt	1	17	20.	7.0	10.
Aroclor-1248	U	7.3	ug/Kgdrywt	1	17	20.	7.3	10.
Aroclor-1254	U	5.6	ug/Kgdrywt	1	17	20.	5.6	10.
Aroclor-1260	U	7.2	ug/Kgdrywt	1	17	20.	7.2	10.
Tetrachloro-M-Xylene		80.3	%					
Decachlorobiphenyl		75.8	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-15
Client ID: 45-SB14-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 30-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 86.
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	6.4	ug/Kgdrywt	1	17	18.	6.4	9.1
Aroclor-1221	U	8.4	ug/Kgdrywt	1	17	18.	8.4	9.1
Aroclor-1232	U	10.	ug/Kgdrywt	1	17	18.	10.	11.
Aroclor-1242	U	6.2	ug/Kgdrywt	1	17	18.	6.2	9.1
Aroclor-1248	U	6.5	ug/Kgdrywt	1	17	18.	6.5	9.1
Aroclor-1254	U	5.0	ug/Kgdrywt	1	17	18.	5.0	9.1
Aroclor-1260	U	6.4	ug/Kgdrywt	1	17	18.	6.4	9.1
Tetrachloro-M-Xylene		85.7	%					
Decachlorobiphenyl		84.3	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-13
Client ID: AX45-DUP01-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 93.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		190	mg/Kgdrywt	1	20	21.	6.1	11.
o-Terphenyl		107.	%					
n-Triacontane-D62		102.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-5
Client ID: 45-SB05-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 23-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 72.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		250	mg/Kgdrywt	1	20	27.	7.8	14.
o-Terphenyl		102.	%					
n-Triacontane-D62		106.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-6
Client ID: 45-SB06-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		210	mg/Kgdrywt	1	20	23.	6.5	11.
o-Terphenyl		109.	%					
n-Triacontane-D62		118.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-7
Client ID: 45-SB07-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 82.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		140	mg/Kgdrywt	1	20	23.	6.5	11.
o-Terphenyl	J	114.	%					
n-Triacontane-D62		127.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-8
Client ID: 45-SB08-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 95.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		100	mg/Kgdrywt	1	20	20.	5.7	10.
o-Terphenyl		108.	%					
n-Triacontane-D62		119.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-9
Client ID: 45-SB09-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		28.	mg/Kgdrywt	1	20	22.	6.3	11.
o-Terphenyl		104.	%					
n-Triacontane-D62		127.	%					

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Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-10
Client ID: 45-SB10-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 82.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		29.	mg/Kgdrywt	1	20	24.	6.8	12.
o-Terphenyl		98.5	%					
n-Triacontane-D62		121.	%					

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Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-11
Client ID: 45-SB11-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 83.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		72.	mg/Kgdrywt	1	20	23.	6.6	12.
o-Terphenyl		99.0	%					
n-Triacontane-D62		120.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-12
Client ID: 45-SB12-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 93.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		230	mg/Kgdrywt	1	20	21.	6.1	11.
o-Terphenyl	J	125.	%					
n-Triacontane-D62		117.	%					

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Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 80.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		200	mg/Kgdrywt	1	20	24.	6.8	12.
o-Terphenyl		96.2	%					
n-Triacontane-D62		117.	%					

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Cert No E87604

Report of Analytical Results

Client: Tetra Tech NUS, Inc.
Lab ID: SE3674-15
Client ID: 45-SB14-SB-06242011
Project: NAS JAX
SDG: JAX04

Sample Date: 24-JUN-11
Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 86.
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics		30.	mg/Kgdrywt	1	20	22.	6.3	11.
o-Terphenyl		102.	%					
n-Triacontane-D62		114.	%					

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Appendix C

Support Documentation

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TS	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
OS	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB10-SB-0624201	SE3674-10	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB11-SB-0624201	SE3674-11	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB12-SB-0624201	SE3674-12	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB13-SB-0624201	SE3674-14	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB14-SB-0624201	SE3674-15	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB09-SB-0624201	SE3674-9	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB08-SB-0624201	SE3674-8	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB07-SB-0624201	SE3674-7	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB06-SB-0624201	SE3674-6	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	%	JAX45-SB05-SB-0624201	SE3674-5	SUR	06/23/2011	06/27/2011	06/29/2011	4	2	6
OS	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
OS	%	JAX45-DUP01-06242011	SE3674-13	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
OS	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OV	%	JAX45-SB05-SB-0624201	SE3674-5	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DUP04-40-062220	SE3610-10	SUR	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DUP04-40-062220	SE3610-10	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DUP01-06242011	SE3674-13	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT-DUP03-06222	SE3610-5	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT22-60-062320	SE3674-1	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/30/2011	06/30/2011	6	0	6
OV	%	JAX45-DPT22-60-062320	SE3674-1	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT22-40-062320	SE3674-2	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT-DUP03-06222	SE3610-5	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB13-SB-0624201	SE3674-14	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB12-SB-0624201	SE3674-12	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB11-SB-0624201	SE3674-11	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-SB10-SB-0624201	SE3674-10	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB06-SB-0624201	SE3674-6	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB09-SB-0624201	SE3674-9	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB08-SB-0624201	SE3674-8	SUR	06/24/2011	06/30/2011	06/30/2011	6	0	6
OV	%	JAX45-DPT22-12-062320	SE3674-4	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB07-SB-0624201	SE3674-7	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT22-40-062320	SE3674-2	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-DPT20-20-062220	SE3610-8	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	TB-04	SE3674-18	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	AX45-DPT-RINSATE-0622	SE3610-15	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	AX45-DPT-RINSATE-0622	SE3610-15	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-12-062220	SE3610-4	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-12-062220	SE3610-4	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-20-062220	SE3610-3	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT19-20-062220	SE3610-3	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT19-40-062220	SE3610-2	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-40-062220	SE3610-2	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-60-062220	SE3610-1	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT19-60-062220	SE3610-1	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT20-12-062220	SE3610-9	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT22-20-062320	SE3674-3	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT21-12-062220	SE3610-14	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT22-12-062320	SE3674-4	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT21-60-062220	SE3610-11	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT21-60-062220	SE3610-11	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT21-40-062220	SE3610-12	SUR	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT21-40-062220	SE3610-12	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT20-12-062220	SE3610-9	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT21-20-062220	SE3610-13	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT20-20-062220	SE3610-8	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT21-12-062220	SE3610-14	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-DPT20-60-062220	SE3610-6	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	JAX45-DPT20-60-062220	SE3610-6	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	JAX45-DPT20-40-062220	SE3610-7	SUR	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT20-40-062220	SE3610-7	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	%	JAX45-DPT22-20-062320	SE3674-3	SUR	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	%	JAX45-DPT21-20-062220	SE3610-13	SUR	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	%	JAX45-SBRINSATE-0624	SE3674-16	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SBRINSATE-0624	SE3674-16	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	TB-02	SE3610-16	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	TB-02	SE3610-16	SUR	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	%	TB-03	SE3674-17	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	TB-04	SE3674-18	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	JAX45-SB14-SB-0624201	SE3674-15	SUR	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	%	TB-03	SE3674-17	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	TB-03	SE3674-17	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/30/2011	06/30/2011	6	0	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/L	TB-02	SE3610-16	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT22-12-062320	SE3674-4	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-12-062320	SE3674-4DL	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-20-062320	SE3674-3	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-20-062320	SE3674-3DL	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-40-062320	SE3674-2	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DPT22-60-062320	SE3674-1	NM	06/23/2011	06/29/2011	06/29/2011	6	0	6
OV	UG/L	JAX45-DUP04-40-062220	SE3610-10	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	UG/L	JAX45-DPT21-60-062220	SE3610-11	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-SBRINSATE-0624	SE3674-16	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/L	JAX45-DPT-DUP03-06222	SE3610-5	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT19-12-062220	SE3610-4	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/L	TB-04	SE3674-18	NM	06/24/2011	06/29/2011	06/29/2011	5	0	5
OV	UG/L	AX45-DPT-RINSATE-0622	SE3610-15	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT21-40-062220	SE3610-12	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	UG/L	JAX45-DPT19-20-062220	SE3610-3	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT19-40-062220	SE3610-2	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT19-60-062220	SE3610-1	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT20-20-062220	SE3610-8	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
OV	UG/L	JAX45-DPT20-40-062220	SE3610-7	NM	06/22/2011	06/25/2011	06/25/2011	3	0	3
OV	UG/L	JAX45-DPT20-12-062220	SE3610-9	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT21-20-062220	SE3610-13	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT21-12-062220	SE3610-14	NM	06/22/2011	06/27/2011	06/27/2011	5	0	5
OV	UG/L	JAX45-DPT20-60-062220	SE3610-6	NM	06/22/2011	06/24/2011	06/24/2011	2	0	2
SIM	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
SIM	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	07/01/2011	3	4	7
SIM	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB11-SB-0624201	SE3674-11DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-DUP01-06242011	SE3674-13DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/29/2011	4	2	6
SIM	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	07/01/2011	3	4	7
SIM	UG/KG	JAX45-SB06-SB-0624201	SE3674-6DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB09-SB-0624201	SE3674-9RA	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	UG/KG	JAX45-SB07-SB-0624201	SE3674-7DL	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
SIM	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
SIM	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
PCB	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/28/2011	4	1	5
PCB	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	UG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/28/2011	3	1	4
PCB	UG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/27/2011	06/28/2011	4	1	5
PCB	UG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
PCB	UG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
TPH	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/28/2011	07/02/2011	5	4	9
TPH	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	MG/KG	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/28/2011	07/02/2011	5	4	9
TPH	MG/KG	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8
TPH	MG/KG	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/28/2011	07/02/2011	4	4	8

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2269 | PAGE 1 OF 2

PROJECT NO: 112G01511	FACILITY: NAS JAX	PROJECT MANAGER ALAN PATE	PHONE NUMBER (904) 636-6125	LABORATORY NAME AND CONTACT: KATAHDIN SERVICE ANALYTICAL SERVICES INC
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER ZACH SCRIBNER	PHONE NUMBER (904) 636-6125	ADDRESS 600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

DATE YEAR	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOC's (GW)	VOC's (SOIL)	VOC's (SOIL)	PCB/PAH	SVOCs (SOIL)	TPH	METALS	COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	G	G	G	G	G	
PRESERVATIVE USED									HCl	DI	MeOH	/	/	/	/	
2011		SE3674														
6/23	1010	~~DP~~JAX45-DPT22-60-06232011				GW	G	3	3							Cool to 4°C
6/23	1025	JAX45-DPT22-40-06232011				GW	G	3	3							
6/23	1040	JAX45-DPT22-20-06232011				GW	G	3	3							
6/23	1055	JAX45-DPT22-12-06232011				GW	G	3	3							
6/24	0840	JAX45-SB05-SB-06242011				Soil	G	7	X	3	1	1	1	1		
6/24	0855	JAX45-SB06-SB06242011						7	X	3	1	1	1	1		
	0910	JAX45-SB07-SB06242011						7	X	3	1	1	1	1		
	0930	JAX45-SB08-SB-06242011						7	X	3	1	1	1	1		
	0955	JAX45-SB09-SB-06242011						7	X	3	1	1	1	1		
	1020	JAX45 SB10-SB-06242011						7	X	3	1	1	1	1		
	1035	JAX45-SB11SB-06242011						7	X	3	1	1	1	1		
	1055	JAX45-SB12-SB-06242011						7	X	3	1	1	1	1		
	0000	JAX45-DuP01-06242011						7	X	3	1	1	1	1		

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/24/2011	1530	1. RECEIVED BY	6/25/11	1000
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

000013

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2270 | PAGE 2 OF 2

PROJECT NO: 112G01511	FACILITY: NAS JAX	PROJECT MANAGER ALAN PATE	PHONE NUMBER (904) 636-6125	LABORATORY NAME AND CONTACT: KATAHDIN ANALYTICAL SERVICES INC
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER ZACH SCRIBNER	PHONE NUMBER (904) 636-6125	ADDRESS 600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE SCARBOROUGH ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

SE3674

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)								COMMENTS
									G	G	G	G	G	G			
									PRESERVATIVE USED								
									DI	WEOH	/	/	/	HCl			
									TYPE OF ANALYSIS								
									VOC	VOC	PCB/PAH/SVOC (8082)	TRPH (4oz)	METALS (4oz)	VOC (40ml)			
6/24	1125	JAX45-SB13-SB-0624 2011	(*)			Soil	G	21	9	3	3	3	3				(*) - INDICATES MS/MSD — cool to 4°C
6/24	1155	JAX45-SB14-SB-0624 2011				Soil	G	7	3	1	1	1	1				
6/24	1205	JAX45-SBRINSATE-0624 2011				QC	G	3	0	0	0	0	0	3			
6/24	1210	TB-03				QC	-	4	3	1	0	0	0	0			
6/24	1215	TB-04				QC	-	2	0	0	0	0	0	2			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/24/2011	1530	1. RECEIVED BY	6/25/11	1000
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TINUS-001

100000

Katahdin Analytical Services, Inc. — Sample Receipt Condition Report

Client: Tetra Tech	KAS PM: KAP	Sampled By: Client
Project:	KIMS Entry By: GV	Delivered By: Fedex
KAS Work Order#: SE3674	KIMS Review By:	Received By: RDW
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 6/25/11 1000

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 0.1
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea	✓				
Soil/Sediment: Received in airtight container?	✓				
Received in methanol?	✓				
Methanol covering soil?	✓				
7. Trip Blank present in cooler?	✓				
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

0000011

Katahdin Analytical Services, Inc. **Sample Receipt Condition Report**

Client: Tetra Tech	KAS PM: KAP	Sampled By: Client
Project:	KIMS Entry By: GW	Delivered By: Fedex
KAS Work Order#: SE3674	KIMS Review By:	Received By: DLee
SDG #:	Cooler: 2 of 2	Date/Time Rec.: 6/05/11 1000

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?				✓	
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 9
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) may not meet certain regulatory requirements and may invalidate certain data.
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles free of headspace: **Aqueous:** No bubble larger than a pea				✓	
Soil/Sediment: Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

0000012

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
TETRA TECH NUS
CASE NAS JAX
SDG: JAX04
SE3674

Sample Receipt

The following samples were received on June 25, 2011 and were logged in under Katahdin Analytical Services work order number SE3674 for a hardcopy due date of July 13, 2011.

KATAHDIN Sample No.	TTNUS Sample Identification
SE3674-1	5-DPT22-60-06232011
SE3674-2	5-DPT22-40-06232011
SE3674-3	5-DPT22-20-06232011
SE3674-4	5-DPT22-12-06232011
SE3674-5	45-SB05-SB-06242011
SE3674-6	45-SB06-SB-06242011
SE3674-7	45-SB07-SB-06242011
SE3674-8	45-SB08-SB-06242011
SE3674-9	45-SB09-SB-06242011
SE3674-10	45-SB10-SB-06242011
SE3674-11	45-SB11-SB-06242011
SE3674-12	45-SB12-SB-06242011
SE3674-13	AX45-DUP01-06242011
SE3674-14	45-SB13-SB-06242011
SE3674-15	45-SB14-SB-06242011
SE3674-16	-SBRINSATE-06242011
SE3674-17	TB-03
SE3674-18	TB-04

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

The client IDs on the Chain of Custody exceeds the 19-character limit of the Katahdin Analytical Information Management System. Therefore, the first characters "JAX4" in the client IDs for SE3674-1 through -4 were omitted on all forms. In addition, the first characters "JAX" in the client IDs for SE3674-5 through SE3674-12 and SE3674-14 through SE3674-15 were omitted on all forms. Also, the first character "J" in the client ID for SE3674-13 was omitted on all forms and "JAX45" in the client ID for SE3674-16 was omitted on all forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Kelly Perkins**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of SDG JAX04 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, and III 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or for the specific methods listed below or on the Report of Analysis.

Sample SE3674-14 was used for the matrix spike (MS) and matrix spike duplicate (MSD), as requested by the client.

8270D SCAN Analysis

All soil samples and associated QC were subjected to the GPC sample clean-up process.

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

The laboratory control sample (LCS) WG93321-2 had a high response for the internal standard chrysene-d12 that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. Since spike recoveries were acceptable and the associated LCSD was acceptable, the LCS was not reanalyzed.

The analyte benzaldehyde is an EPA CLP compound that is very sensitive to the condition of the injection port of the GC/MS instrument. Consequently, the response of this analyte may fluctuate from one analysis to another which may result in high %RSD's for initial calibrations, high %D's for CV's, and low or high recoveries for LCS's.

The independent check standard (file U6269D) associated with the initial calibration on 06/27/11 had low concentrations for the target analytes benzaldehyde and atrazine, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The CV (file U6270D) had a high response for the analyte 2,2'-oxybis(1-chloropropane). The CV (file U6287D) had high responses for the analytes 2,2'-oxybis(1-chloropropane) and N-nitroso-di-n-propylamine and a low response for benzaldehyde. These responses resulted in %D's that were greater than the acceptance limit of 20% from DoD QSM Version 4.1.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are nominal limits for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable. Nominal limits are used for the LCS/LCSD until enough data is collected to generate statistically based acceptance limits.

8270D SIM Analysis

All soil samples and associated QC were subjected to the GPC sample clean-up process.

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

Samples SE3674-5, 7, 8, 9, 9RA, 10, 11, 12, 13, 13DL, 14 and 15 were manually integrated for the analytes acenaphthylene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene and/or benzo(g,h,i)perylene. The specific reason for the manual integration is indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Sample SE3674-9 had a high response for one internal standard that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. The sample was reanalyzed and had a high response for the same internal standard that confirmed matrix interference. Results for both analyses are reported.

Sample SE3674-11 had a high response for one internal standard that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. The sample was reanalyzed at a dilution and had acceptable internal standard responses. Therefore, the sample was not reanalyzed undiluted.

The independent check standard (file G1621) associated with the initial calibration on 06/28/11 had a low concentration for the target analyte indeno(1,2,3-cd)pyrene, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.
The CV (file G1622) had a low response for indeno(1,2,3-cd)pyrene. The CV (file G1640) had low responses for pyrene, benzo(a)anthracene and indeno(1,2,3-cd)pyrene. These responses resulted in %D's that were greater than the acceptance limit of 20% from DoD QSM Version 4.1.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are nominal limits for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM

allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable. Nominal limits are used for the LCS/LCSD until enough data is collected to generate statistically based acceptance limits.

The LCSD WG93366-3 had four spiked target analytes with recoveries that were low and outside of the laboratory nominal acceptance limits. This LCSD also had a high response for one internal standard that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. The DoD QSM allowable number of exceedances for 17 target analytes is one analyte. Since the LCS WG93366-2 was acceptable, after factoring in the allowable number of exceedances, no further action was taken.

The MS WG93366-4 had seven spiked target analytes with recoveries that were non-calculable and reported as 0% recovery due to the concentration in the native sample being higher than in the MS. This is likely due to a non-homogeneous sample.

FL-PRO Analysis

Surrogate recoveries for all samples and QC were evaluated using the method acceptance limits for the surrogate o-terphenyl and laboratory nominal acceptance limit for the surrogate n-Triacontance-D_{62}.

The spike recoveries for the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were evaluated using the method acceptance limits.

All samples in the SDG were manually integrated for the target range PRO, the extraction surrogates o-terphenyl and/or n-Triacontance-D_{62}. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Samples SE3674-7 and 12 had high recoveries for the extraction surrogate o-terphenyl that were outside of the method acceptance limits. Since the second surrogate was acceptable, the samples were not reextracted.

The LCS/LCSD WG93375-2 and 3 and the MS/MSD WG93375-4 and 5 had low recoveries for the surrogate n-Triacontance-D_{62} that were outside of the nominal acceptance limits. Since the recoveries were acceptable for the second surrogate, no further action was taken.

The opening/closing calibration verification (CV) (file AEG2033) had a low response for the individual hydrocarbon C_{40}. This resulted in a %D that was greater than the DoD QSM limit of 20%. Since the method requirement applies to only the PRO range response, which was acceptable, the associated samples were not reanalyzed.

8082A Analysis

Surrogate recoveries for all samples and QC, as well as spike recoveries for the laboratory control samples and laboratory control sample duplicates (LCS/LCSDs) and MS/MSD, were evaluated using laboratory established acceptance limits.

The method blank WG93367-1 had low recoveries for the surrogate TCX on both channels, which were outside of the laboratory established acceptance limits. Since the recoveries for DCB were acceptable, the associated samples were not reextracted.

Samples SE3674-6, 8, 10 and the MS/MSD WG93367-4 and 5 had low recoveries for the surrogate TCX on channel A, which were outside of the laboratory established acceptance limits. Since the recoveries for DCB were acceptable, as well as the recovery for TCX on channel B, the samples were not reextracted.

Sample SE3674-5 had low recoveries for the surrogate TCX on both channels and a low recovery for the surrogate DCB on channel A, which were outside of the laboratory established acceptance limits. Since the recovery for DCB on channel B was acceptable, the sample was not reextracted.

Sample SE3674-5 was manually integrated for the surrogate TCX. The specific reason for the manual integration is indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The closing calibration verification standard (CV) (file 7EF522) had high responses for Aroclor 1016; Aroclor 1260 and the surrogate DCB on both channels, which resulted in %D's that were outside of the DoD QSM acceptance limits of ±20%. Since a high response would indicate a high bias and the associated samples did not have any target analytes detected above the MDL, the samples were not reanalyzed.

The opening CV (file 7EF542) had a low response for the surrogate TCX on channel A, which resulted in a %D that was outside of the DoD QSM acceptance limits of ±20%. Since the response was acceptable on channel B, the associated samples were not reanalyzed.

The opening CV (file 7EF562) had low response for Aroclor 1016 and the surrogate TCX on channel A, which resulted in %D's that were outside of the DoD QSM acceptance limits of ±20%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

8260B Analysis

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD

QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The initial calibration analyzed on the D instrument on 06/28/2011 had %RSD values for several analytes that exceeded the method acceptance limit of 15%. For these analytes, either a linear or quadratic model was used for quantitation instead of an average response factor. The target analyte acetone failed for both the linear and quadratic models in the initial calibration curve due to the correlation coefficient and the coefficient of determination being less than the method acceptance criteria of 0.995 and 0.990 respectively. This compound was calibrated using the average model. The corresponding independent check standard (file D1591) had high concentrations for the target analytes acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard is the same source as the LCS. Since the associated LCS WG93448-1 had recoveries for these analytes that were within the LCS acceptance limits, the associated samples were not reanalyzed. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The independent check standard (file C3754a), associated with the initial calibration on 06/28/11, had high concentrations for the target analytes acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard is the same source as the LCS. There were two analytical batches associated with this initial calibration and the two LCS's WG93458-1 and WG93495-1 had acceptable LCS recoveries. Therefore, the associated samples were not reanalyzed. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The calibration verification standard (CV) (file C3749) had a low response for the target analyte acetone, which resulted in a %D that was greater than the acceptance limit of 20% from DoD QSM Version 4.1.

The target analytes carbon disulfide and acetone were detected below ½ the reporting limit in the method blanks WG93458-2 and WG93495-2. According to the DoD QSM section D.1.1.1, a method blank is considered to be contaminated if the concentration of any target analyte in the blank exceeds ½ the reporting limit. Since the method blanks were acceptable, no further action was taken.

Samples SE3674-2, 3, 4, and 7 were manually integrated for the analytes chloromethane, acetone, and benzene. The specific reason for the manual integration is indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The MS/MSD WG93458-3 and 4 were analyzed 20 minutes and 53 minutes outside of the 12-hour analytical shift. Due to analyst error, the problem was not noticed until the hold time had expired. The MS also had a recovery for one surrogate that was low and outside the laboratory established limits.

There were no other protocol deviations or observations noted by the organics laboratory staff.

Metals Analysis

The samples of SDG JAX04 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Solid-matrix Katahdin Sample Numbers SE3674-(5-15) were digested for ICP analysis on 06/27/11 (QC Batch BF27ICS0) in accordance with USEPA Method 3010A. Katahdin Sample Number SE3674-15 was prepared in duplicate and with a matrix-spiked aliquot.
The measured calcium concentration (13.0 ug/L) of the preparation blank in this batch is above the laboratory's control limit (> ½ LOQ). Associated samples have been B-flagged in form 1 of the accompanying data package. However, because the measured calcium concentrations of all associated samples are greater than ten times that of the preparation blank, no corrective action was necessary.

ICP analyses of SDG JAX04 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010. All samples were analyzed within holding times and all analytical run QC criteria were met.

Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Solid-matrix Katahdin Sample Numbers SE3674-(5-15) were digested for mercury analysis on 06/29/11 (QC Batch BF29HGS0) in accordance with USEPA Method 7471B. Katahdin Sample Number SE3674-15 was prepared in duplicate and with a matrix-spiked aliquot.

Mercury analyses of SDG JAX04 sample digestate was performed using a Cetac M6100 automated mercury analyzer in accordance with USEPA Method 7471B. All samples were analyzed within holding times and all analytical run QC criteria were met.

Matrix QC Summary

The measured recoveries of antimony, arsenic, and lead in the matrix-spiked aliquot of Katahdin Sample Number SE3674-14 are outside the project acceptance criteria (80% - 120% recovery of the added element, if the native concentration is less than four times the amount added).

The duplicate analysis of Katahdin Sample Number SE3674-14 is outside the laboratory's acceptance limit (<20% relative difference between duplicate aliquots) for aluminum, antimony, barium, beryllium, calcium, iron, magnesium, manganese, nickel, and sodium.

The serial dilution analysis of Katahdin Sample Number SE3674-14 is within the laboratory's acceptance limit (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the LOQ) for all analytes.

The measured recoveries of all ICP analytes in a post-digestion spiked aliquot of Katahdin Sample Number SE3674-14 are within the laboratory's acceptance criteria (75% - 125% recovery of the added element).

Reporting of Metals Results

Analytical results for client samples have been reported down to the laboratory's method detection limits (MDLs) throughout the accompanying data package. These MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis. Results that fall between the MDL and the laboratory's limits of quantitation (LOQ) are flagged with "I" in the C-qualifier column, and the measured concentration appears in the concentration column. Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the MDL is listed in the concentration column. These LOQ's, MDLs and LODs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VA, VD, VII, and IX for client samples, matrix QC samples (duplicates and matrix spikes), and laboratory control samples have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the measured concentration is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, LODs, MDLs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of SDG JAX04 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for total solids were performed according to "Annual Book of ASTM Standards", Method D2216-98 "Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass".

All analyses were performed within analytical holding times. All quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond
07/14/11

Leslie Dimond
Quality Assurance Officer

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: DB674 BFB Injection Date: 06/28/11

Instrument ID: GCMS-D BFB Injection Time: 0919

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	48.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	79.3
175	5.0 - 9.0% of mass 174	6.0 (7.6)1
176	95.0 - 101.0% of mass 174	76.1 (95.9)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050D28B	D1585	06/28/11	1035
02		VSTD020D28A	D1586	06/28/11	1118
03		VSTD005D28A	D1587	06/28/11	1148
04		VSTD001D28A	D1588	06/28/11	1218
05		VSTD200D28A	D1589	06/28/11	1248
06		VSTD100D28A	D1590	06/28/11	1318
07		IND CHECK	D1591A	06/28/11	1401
08					
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20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GCMS-D Calibration Date(s): 06/28/11 06/28/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1035 1318

LAB FILE ID: RF1: D1588 RF5: D1587 RF20: D1586
RF50: D1585 RF100: D1590 RF200: D1589

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2	
m+p-Xylenes	0.669	0.749	0.774	0.739	0.700	0.566	AVRG		0.69956467	10.729	15.000	
o-Xylene	0.590	0.694	0.734	0.732	0.743	0.698	AVRG		0.69848053	8.126	15.000	
Dichlorodifluoromethane	0.792	0.584	0.632	0.608	0.622	0.618	AVRG		0.64274297	11.658	15.000	
Chloromethane	0.548	0.441	0.553	0.583	0.627	0.609	AVRG		0.56032768	11.745	15.000	
Vinyl chloride	0.699	0.573	0.663	0.638	0.648	0.614	AVRG		0.63916372	6.745	15.000	
Bromomethane	4998	21827	115900	330330	707790	1495400	LINR	5.489e-002	3.30824857	0.99875	0.99000	
Chloroethane	0.442	0.353	0.375	0.371	0.299	0.353	AVRG		0.36567019	12.708	15.000	
Trichlorofluoromethane	0.909	0.699	0.759	0.738	0.730	0.710	AVRG		0.75745075	10.177	15.000	
1,1-Dichloroethene	0.374	0.421	0.441	0.431	0.437	0.432	AVRG		0.42280450	5.804	15.000	
Carbon Disulfide	1.270	1.407	1.529	1.462	1.425	1.318	AVRG		1.40165496	6.761	15.000	
Freon-113	0.375	0.331	0.338	0.323	0.317	0.321	AVRG		0.33415629	6.333	15.000	
Methylene Chloride	0.573	0.557	0.542	0.548	0.549	0.534	AVRG		0.55061652	2.469	15.000	
Acetone	0.138	0.130	0.112	0.088	0.107	0.074	AVRG		0.10820697	22.501	15.000	<-
trans-1,2-Dichloroethene	0.465	0.502	0.546	0.530	0.545	0.536	AVRG		0.52064885	6.075	15.000	
Methyl tert-butyl ether	1.128	1.173	1.255	1.249	1.222	1.050	AVRG		1.17948918	6.747	15.000	
1,1-Dichloroethane	0.737	0.838	0.862	0.861	0.860	0.822	AVRG		0.83018846	5.821	15.000	
cis-1,2-Dichloroethene	0.508	0.546	0.569	0.570	0.571	0.562	AVRG		0.55427171	4.424	15.000	
Chloroform	0.754	0.809	0.840	0.854	0.858	0.819	AVRG		0.82230188	4.669	15.000	
Carbon Tetrachloride	0.290	0.358	0.395	0.394	0.406	0.410	AVRG		0.37555625	12.153	15.000	
1,1,1-Trichloroethane	0.579	0.692	0.739	0.733	0.746	0.727	AVRG		0.70272969	9.017	15.000	
2-Butanone	0.146	0.166	0.157	0.130	0.149	0.112	AVRG		0.14332909	13.771	15.000	
Benzene	1.275	1.394	1.412	1.380	1.326	1.131	AVRG		1.31965417	7.977	15.000	
Cyclohexane	0.701	0.789	0.823	0.769	0.793	0.783	AVRG		0.77633852	5.286	15.000	
1,2-Dichloroethane	0.332	0.378	0.376	0.377	0.370	0.357	AVRG		0.36488400	4.947	15.000	
Trichloroethene	0.292	0.313	0.321	0.313	0.315	0.312	AVRG		0.31115660	3.170	15.000	
1,2-Dichloropropane	0.273	0.292	0.302	0.309	0.309	0.300	AVRG		0.29776203	4.570	15.000	
Bromodichloromethane	0.290	0.360	0.391	0.412	0.418	0.408	AVRG		0.37994298	12.796	15.000	
cis-1,3-dichloropropene	0.351	0.432	0.494	0.527	0.522	0.503	AVRG		0.47184239	14.447	15.000	
Toluene	0.837	0.916	0.934	0.916	0.901	0.807	AVRG		0.88516127	5.764	15.000	
4-methyl-2-pentanone	0.142	0.185	0.187	0.172	0.173	0.136	AVRG		0.16579143	13.133	15.000	
Tetrachloroethene	0.292	0.292	0.303	0.290	0.309	0.297	AVRG		0.29721936	2.604	15.000	
trans-1,3-Dichloropropene	9583	64760	296480	803050	1634500	3165600	LINR	4.706e-003	2.41674986	0.99972	0.99000	
1,1,2-Trichloroethane	0.176	0.209	0.213	0.212	0.213	0.209	AVRG		0.20539176	7.152	15.000	
Dibromochloromethane	6848	44898	198840	549400	1148700	2340500	LINR	2.36e-002	3.14310117	0.99984	0.99000	
1,2-Dibromoethane	0.189	0.233	0.248	0.252	0.263	0.260	AVRG		0.24092333	11.447	15.000	
2-Hexanone	0.104	0.145	0.144	0.129	0.139	0.111	AVRG		0.12881305	13.417	15.000	
Chlorobenzene	0.931	1.009	1.021	1.004	0.966	0.845	AVRG		0.96275002	6.915	15.000	
Ethylbenzene	0.533	0.567	0.600	0.585	0.593	0.566	AVRG		0.57386391	4.239	15.000	
Xylenes (total)							AVRG				0.000	
Styrene	0.807	1.091	1.209	1.237	1.188	1.032	AVRG		1.09410694	14.684	15.000	
Bromoform	3551	22901	108600	311440	688180	1444300	LINR	5.142e-002	5.09083381	0.99896	0.99000	
Isopropylbenzene	2.139	2.506	2.648	2.513	2.358	1.926	AVRG		2.34853907	11.482	15.000	
1,1,2,2-Tetrachloroethane	0.467	0.546	0.541	0.534	0.552	0.523	AVRG		0.52726517	5.944	15.000	
1,3-Dichlorobenzene	1.327	1.460	1.447	1.422	1.400	1.261	AVRG		1.38619064	5.582	15.000	

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GCMS-D Calibration Date(s): 06/28/11 06/28/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1035 1318

LAB FILE ID: RF1: D1588 RF5: D1587 RF20: D1586
RF50: D1585 RF100: D1590 RF200: D1589

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dichlorobenzene	1.490	1.506	1.488	1.444	1.432	1.281	AVRG		1.44026168	5.761	15.000
1,2-Dichlorobenzene	1.262	1.372	1.364	1.342	1.340	1.214	AVRG		1.31585039	4.804	15.000
1,2-Dibromo-3-Chloropropa	0.081	0.094	0.084	0.085	0.102	0.093	AVRG		9.008e-002	8.690	15.000
1,2,4-Trichlorobenzene	1.067	1.042	1.030	0.978	0.984	0.882	AVRG		0.99724032	6.614	15.000
Methyl Acetate	0.304	0.276	0.264	0.253	0.262	0.233	AVRG		0.26523152	8.888	15.000
Methylcyclohexane	1.068	0.838	0.916	0.872	0.855	0.840	AVRG		0.89819167	9.793	15.000
Dibromofluoromethane	0.482	0.402	0.445	0.438	0.449	0.443	AVRG		0.44312310	5.750	15.000
1,2-Dichloroethane-D4	0.516	0.475	0.488	0.461	0.463	0.445	AVRG		0.47467211	5.213	15.000
Toluene-D8		1.101	1.226	1.125	1.065	0.903	AVRG		1.08388363	10.860	15.000
P-Bromofluorobenzene		0.461	0.501	0.473	0.485	0.485	AVRG		0.48116108	3.146	15.000

FORM VI VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: DB675 BFB Injection Date: 06/29/11

Instrument ID: GCMS-D BFB Injection Time: 0914

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	48.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	Greater than 50.0% of mass 95	80.3
175	5.0 - 9.0% of mass 174	4.7 (5.9)1
176	95.0 - 101.0% of mass 174	77.6 (96.6)1
177	5.0 - 9.0% of mass 176	5.4 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050D29A	D1608	06/29/11	0940
02	WG93448-LCS	WG93448-1	D1609	06/29/11	1019
03	WG93448-BLANK	WG93448-2	D1612A	06/29/11	1212
04	-SBRINSATE-06242011	SE3674-16	D1613	06/29/11	1241
05	TB-04	SE3674-18	D1614	06/29/11	1311
06	5-DPT22-60-06232011	SE3674-1	D1615	06/29/11	1341
07	5-DPT22-40-06232011	SE3674-2	D1616	06/29/11	1447
08	5-DPT22-20-06232011	SE3674-3	D1617	06/29/11	1517
09	5-DPT22-12-06232011	SE3674-4	D1618	06/29/11	1547
10	5-DPT22-20-06232011	SE3674-3DL	D1621	06/29/11	1716
11	5-DPT22-12-06232011	SE3674-4DL	D1622	06/29/11	1746
12					
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FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-D Calibration Date: 06/29/11 Time: 0940

Lab File ID: D1608 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 1035 1318

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.6430000	0.5618000	0.5618000	0.01	-12.63	20.00	AVRG
Chloromethane	0.5600000	0.5542000	0.5542000	0.1	-1.04	20.00	AVRG
Vinyl chloride	0.6390000	0.5990400	0.5990400	0.01	-6.25	20.00	AVRG
Bromomethane	43.123000	50.000000	0.2441100	0.01	-13.75	20.00	LINR
Chloroethane	0.3660000	0.3492500	0.3492500	0.01	-4.58	20.00	AVRG
Trichlorofluoromethane	0.7580000	0.6963100	0.6963100	0.01	-8.14	20.00	AVRG
1,1-Dichloroethene	0.4230000	0.4194200	0.4194200	0.1	-0.85	20.00	AVRG
Carbon Disulfide	1.4020000	1.4714000	1.4714000	0.01	4.95	20.00	AVRG
Freon-113	0.3340000	0.2939800	0.2939800	0.01	-11.98	20.00	AVRG
Methylene Chloride	0.5500000	0.5224300	0.5224300	0.01	-5.01	20.00	AVRG
Acetone	0.1080000	8.76e-002	8.76e-002	0.01	-18.89	20.00	AVRG
trans-1,2-Dichloroethene	0.5210000	0.5071300	0.5071300	0.01	-2.66	20.00	AVRG
Methyl tert-butyl ether	1.1800000	1.1318000	1.1318000	0.01	-4.08	20.00	AVRG
1,1-Dichloroethane	0.8300000	0.8210100	0.8210100	0.1	-1.08	20.00	AVRG
cis-1,2-Dichloroethene	0.5540000	0.5383800	0.5383800	0.01	-2.82	20.00	AVRG
Chloroform	0.8220000	0.8038300	0.8038300	0.01	-2.21	20.00	AVRG
Carbon Tetrachloride	0.3760000	0.3692400	0.3692400	0.01	-1.80	20.00	AVRG
1,1,1-Trichloroethane	0.7030000	0.6983100	0.6983100	0.01	-0.67	20.00	AVRG
2-Butanone	0.1430000	0.1292500	0.1292500	0.01	-9.62	20.00	AVRG
Benzene	1.3200000	1.3121000	1.3121000	0.01	-0.60	20.00	AVRG
Cyclohexane	0.7760000	0.7537500	0.7537500	0.01	-2.87	20.00	AVRG
1,2-Dichloroethane	0.3650000	0.3572500	0.3572500	0.01	-2.12	20.00	AVRG
Trichloroethene	0.3110000	0.2993600	0.2993600	0.01	-3.74	20.00	AVRG
1,2-Dichloropropane	0.2980000	0.2890600	0.2890600	0.01	-3.00	20.00	AVRG
Bromodichloromethane	0.3800000	0.3852500	0.3852500	0.01	1.38	20.00	AVRG
cis-1,3-dichloropropene	0.4720000	0.4826700	0.4826700	0.01	2.26	20.00	AVRG
Toluene	0.8850000	0.8742000	0.8742000	0.01	-1.22	20.00	AVRG
4-methyl-2-pentanone	0.1660000	0.1700900	0.1700900	0.01	2.46	20.00	AVRG
Tetrachloroethene	0.2970000	0.2763700	0.2763700	0.01	-6.95	20.00	AVRG

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-D Calibration Date: 06/29/11 Time: 0940

Lab File ID: D1608 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 1035 1318

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	46.140000	50.000000	0.3798800	0.01	-7.72	20.00	LINR	
1,1,2-Trichloroethane	0.2050000	0.2018100	0.2018100	0.01	-1.56	20.00	AVRG	
Dibromochloromethane	45.392000	50.000000	0.2813300	0.01	-9.22	20.00	LINR	
1,2-Dibromoethane	0.2410000	0.2404400	0.2404400	0.01	-0.23	20.00	AVRG	
2-Hexanone	0.1290000	0.1238200	0.1238200	0.01	-4.02	20.00	AVRG	
Chlorobenzene	0.9630000	0.9328400	0.9328400	0.3	-3.13	20.00	AVRG	
Ethylbenzene	0.5740000	0.5540800	0.5540800	0.01	-3.47	20.00	AVRG	
Xylenes (total)	0.0000000	0.7023500	0.7023500	0.01	0.00	20.00	AVRG	<-
Styrene	1.0940000	1.1434000	1.1434000	0.01	4.52	20.00	AVRG	
Bromoform	42.841000	50.000000	0.1582000	0.1	-14.32	20.00	LINR	
Isopropylbenzene	2.3480000	2.3840000	2.3840000	0.01	1.53	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.5270000	0.5048300	0.5048300	0.3	-4.21	20.00	AVRG	
1,3-Dichlorobenzene	1.3860000	1.3156000	1.3156000	0.01	-5.08	20.00	AVRG	
1,4-Dichlorobenzene	1.4400000	1.3496000	1.3496000	0.01	-6.28	20.00	AVRG	
1,2-Dichlorobenzene	1.3160000	1.2456000	1.2456000	0.01	-5.35	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	9.e-002	7.93e-002	7.93e-002	0.01	-11.89	20.00	AVRG	
1,2,4-Trichlorobenzene	0.9970000	0.8901800	0.8901800	0.01	-10.71	20.00	AVRG	
Methyl Acetate	0.2650000	0.2297600	0.2297600	0.01	-13.30	20.00	AVRG	
Methylcyclohexane	0.8980000	0.7902300	0.7902300	0.01	-12.00	20.00	AVRG	
Dibromofluoromethane	0.4430000	0.4229500	0.4229500	0.01	-4.53	20.00	AVRG	
1,2-Dichloroethane-D4	0.4750000	0.4557700	0.4557700	0.01	-4.05	20.00	AVRG	
Toluene-D8	1.0840000	1.0856000	1.0856000	0.01	0.15	20.00	AVRG	
P-Bromofluorobenzene	0.4810000	0.4563400	0.4563400	0.01	-5.13	20.00	AVRG	

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: CB215 BFB Injection Date: 06/28/11

Instrument ID: GCMS-C BFB Injection Time: 0827

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	91.8
175	5.0 - 9.0% of mass 174	5.4 (5.9)1
176	95.0 - 101.0% of mass 174	87.2 (95.1)1
177	5.0 - 9.0% of mass 176	5.9 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050C28A	C3739	06/28/11	0849
02		VSTD020C28A	C3740	06/28/11	1004
03		VSTD010C28A	C3741	06/28/11	1035
04		VSTD005C28A	C3742	06/28/11	1106
05		VSTD200C28A	C3743	06/28/11	1137
06		VSTD100C28A	C3744	06/28/11	1208
07		IND CHECK	C3745A	06/28/11	1303
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FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GCMS-C Calibration Date(s): 06/28/11 06/28/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 0849 1208

LAB FILE ID: RF5: C3742 RF10: C3741 RF20: C3740
RF50: C3739 RF100: C3744 RF200: C3743

COMPOUND	RF5	RF10	RF20	RF50	RF100	RF200	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
o-Xylene	0.452	0.394	0.425	0.435	0.414	0.395	AVRG	0.41907387	5.474	15.000
m+p-Xylenes	0.477	0.419	0.448	0.454	0.429	0.403	AVRG	0.43838964	6.101	15.000
Dichlorodifluoromethane	0.437	0.422	0.431	0.426	0.393	0.403	AVRG	0.41879053	4.150	15.000
Chloromethane	0.648	0.580	0.587	0.560	0.531	0.509	AVRG	0.56914751	8.558	15.000
Vinyl chloride	0.451	0.422	0.437	0.418	0.414	0.404	AVRG	0.42424414	4.036	15.000
Bromomethane	0.423	0.380	0.366	0.378	0.308	0.305	AVRG	0.36001295	12.666	15.000
Chloroethane	0.231	0.190	0.210	0.215	0.196	0.155	AVRG	0.19971859	13.088	15.000
Trichlorofluoromethane	0.565	0.564	0.575	0.558	0.520	0.529	AVRG	0.55169525	3.963	15.000
1,1-Dichloroethene	0.320	0.283	0.302	0.291	0.287	0.277	AVRG	0.29336746	5.318	15.000
Carbon Disulfide	1.277	1.054	1.106	1.076	1.035	1.002	AVRG	1.09148984	8.923	15.000
Methylene Chloride	0.442	0.393	0.368	0.357	0.344	0.328	AVRG	0.37202863	10.924	15.000
Acetone	0.093	0.091	0.089	0.088	0.073	0.071	AVRG	8.426e-002	11.274	15.000
trans-1,2-Dichloroethene	0.407	0.349	0.360	0.358	0.346	0.334	AVRG	0.35916263	7.049	15.000
Methyl tert-butyl ether	0.772	0.770	0.788	0.837	0.824	0.777	AVRG	0.79448580	3.639	15.000
1,1-Dichloroethane	0.693	0.598	0.612	0.601	0.593	0.548	AVRG	0.60751120	7.804	15.000
cis-1,2-Dichloroethene	0.410	0.352	0.364	0.373	0.364	0.342	AVRG	0.36742831	6.461	15.000
Chloroform	0.700	0.607	0.609	0.612	0.594	0.556	AVRG	0.61314476	7.722	15.000
Carbon Tetrachloride	0.323	0.289	0.300	0.300	0.283	0.283	AVRG	0.29623829	5.128	15.000
1,1,1-Trichloroethane	0.601	0.536	0.561	0.557	0.548	0.527	AVRG	0.55492717	4.668	15.000
2-Butanone	0.104	0.102	0.101	0.103	0.100	0.098	AVRG	0.10114535	2.037	15.000
Benzene	0.939	0.801	0.822	0.825	0.796	0.740	AVRG	0.82047708	7.977	15.000
1,2-Dichloroethane	0.303	0.281	0.262	0.261	0.254	0.244	AVRG	0.26771167	7.961	15.000
Trichloroethene	0.242	0.206	0.221	0.221	0.209	0.211	AVRG	0.21824922	6.111	15.000
1,2-Dichloropropane	0.213	0.181	0.189	0.191	0.189	0.180	AVRG	0.19062422	6.238	15.000
Bromodichloromethane	0.314	0.277	0.286	0.291	0.286	0.275	AVRG	0.28827807	4.796	15.000
cis-1,3-dichloropropene	0.312	0.294	0.315	0.327	0.324	0.310	AVRG	0.31356886	3.674	15.000
Toluene	0.621	0.532	0.533	0.533	0.509	0.487	AVRG	0.53599008	8.498	15.000
4-methyl-2-pentanone	0.128	0.124	0.122	0.113	0.119	0.109	AVRG	0.11916592	5.787	15.000
Tetrachloroethene	0.224	0.204	0.204	0.205	0.198	0.198	AVRG	0.20558537	4.580	15.000
trans-1,3-Dichloropropene	0.266	0.242	0.264	0.280	0.274	0.271	AVRG	0.26609252	5.014	15.000
1,1,2-Trichloroethane	0.142	0.134	0.132	0.135	0.134	0.132	AVRG	0.13482886	2.744	15.000
Dibromochloromethane	0.210	0.200	0.215	0.232	0.226	0.224	AVRG	0.21801676	5.477	15.000
1,2-Dibromoethane	0.171	0.164	0.170	0.174	0.171	0.170	AVRG	0.16988655	1.957	15.000
2-Hexanone	0.104	0.102	0.100	0.091	0.095	0.087	AVRG	9.641e-002	6.963	15.000
Chlorobenzene	0.724	0.619	0.660	0.666	0.633	0.603	AVRG	0.65072942	6.653	15.000
Ethylbenzene	0.398	0.331	0.355	0.360	0.344	0.330	AVRG	0.35293570	7.145	15.000
Styrene	0.735	0.669	0.720	0.743	0.699	0.666	AVRG	0.70532971	4.666	15.000
Bromoform	0.128	0.130	0.143	0.152	0.146	0.149	AVRG	0.14143169	7.113	15.000
Isopropylbenzene	1.836	1.605	1.709	1.732	1.630	1.551	AVRG	1.67726253	6.125	15.000
1,1,2,2-Tetrachloroethane	0.414	0.404	0.402	0.405	0.398	0.402	AVRG	0.40414525	1.306	15.000
1,3-Dichlorobenzene	1.085	0.929	0.972	0.992	0.927	0.894	AVRG	0.96633078	7.007	15.000
1,4-Dichlorobenzene	1.137	0.972	1.003	1.015	0.959	0.917	AVRG	1.00039583	7.538	15.000
1,2-Dichlorobenzene	0.971	0.855	0.897	0.909	0.858	0.824	AVRG	0.88576594	5.839	15.000
1,2-Dibromo-3-Chloropropa	0.075	0.072	0.072	0.076	0.075	0.074	AVRG	7.414e-002	2.274	15.000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GCMS-C Calibration Date(s): 06/28/11 06/28/11

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 0849 1208

LAB FILE ID: RF5: C3742 RF10: C3741 RF20: C3740
RF50: C3739 RF100: C3744 RF200: C3743

COMPOUND	RF5	RF10	RF20	RF50	RF100	RF200	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
1,2,4-Trichlorobenzene	0.828	0.736	0.746	0.783	0.686	0.682	AVRG	0.74391350	7.564	15.000
Freon-113	0.233	0.220	0.225	0.231	0.208	0.218	AVRG	0.22254180	4.216	15.000
Cyclohexane	0.551	0.504	0.525	0.503	0.504	0.488	AVRG	0.51247296	4.361	15.000
Methyl Acetate	0.195	0.192	0.181	0.188	0.203	0.205	AVRG	0.19395628	4.563	15.000
Methylcyclohexane	0.524	0.503	0.528	0.548	0.535	0.545	AVRG	0.53037419	3.133	15.000
Xylenes (total)							AVRG			0.000
Dibromofluoromethane	0.345	0.312	0.309	0.319	0.306	0.304	AVRG	0.31587068	4.761	15.000
1,2-Dichloroethane-D4	0.388	0.356	0.347	0.341	0.338	0.327	AVRG	0.34956540	5.986	15.000
Toluene-D8	0.800	0.705	0.719	0.710	0.677	0.664	AVRG	0.71245539	6.707	15.000
P-Bromofluorobenzene	0.324	0.290	0.292	0.291	0.272	0.274	AVRG	0.29060563	6.483	15.000

Average %RSD test result.

Calculate Average %RSD: 6.372933865
Maximum Average %RSD: 20.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: CB216 BFB Injection Date: 06/29/11

Instrument ID: GCMS-C BFB Injection Time: 0908

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.0
75	30.0 - 60.0% of mass 95	50.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	85.4
175	5.0 - 9.0% of mass 174	5.0 (5.9)1
176	95.0 - 101.0% of mass 174	83.9 (98.2)1
177	5.0 - 9.0% of mass 176	5.6 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050C29A	C3749	06/29/11	0937
02	WG93458-LCS	WG93458-1	C3750	06/29/11	1026
03	WG93458-BLANK	WG93458-2	C3752A	06/29/11	1145
04	TB-03	SE3674-17	C3753	06/29/11	1217
05	45-SB05-SB-06242011	SE3674-5	C3757	06/29/11	1422
06	45-SB06-SB-06242011	SE3674-6	C3758	06/29/11	1603
07	45-SB07-SB-06242011	SE3674-7	C3759	06/29/11	1635
08	45-SB09-SB-06242011	SE3674-9	C3761	06/29/11	1737
09	45-SB10-SB-06242011	SE3674-10	C3762	06/29/11	1810
10	45-SB11-SB-06242011	SE3674-11	C3763	06/29/11	1843
11	45-SB12-SB-06242011	SE3674-12	C3764	06/29/11	1917
12	AX45-DUP01-06242011	SE3674-13	C3765	06/29/11	1950
13	45-SB14-SB-06242011	SE3674-15	C3766	06/29/11	2023
14	45-SB13-SB-06242011	SE3674-14	C3767	06/29/11	2056
15	45-SB13-SB-06242011	WG93458-3	C3768	06/29/11	2128
16	45-SB13-SB-06242011	WG93458-4	C3769	06/29/11	2201
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FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-C Calibration Date: 06/29/11 Time: 0937

Lab File ID: C3749 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 0849 1208

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Dichlorodifluoromethane	0.4190000	0.3885600	0.01	-7.26	20.00	AVRG	
Chloromethane	0.5690000	0.5227900	0.1	-8.12	20.00	AVRG	
Vinyl chloride	0.4240000	0.3843000	0.01	-9.36	20.00	AVRG	
Bromomethane	0.3600000	0.3442900	0.01	-4.36	20.00	AVRG	
Chloroethane	0.2000000	0.2070400	0.01	3.52	20.00	AVRG	
Trichlorofluoromethane	0.5520000	0.5332200	0.01	-3.40	20.00	AVRG	
1,1-Dichloroethene	0.2930000	0.2768300	0.01	-5.52	20.00	AVRG	
Carbon Disulfide	1.0920000	1.0440000	0.01	-4.40	20.00	AVRG	
Methylene Chloride	0.3720000	0.3307100	0.01	-11.10	20.00	AVRG	
Acetone	8.4e-002	6.6e-002	0.01	-21.43	20.00	AVRG	<-
trans-1,2-Dichloroethene	0.3590000	0.3343500	0.01	-6.87	20.00	AVRG	
Methyl tert-butyl ether	0.7950000	0.7578200	0.01	-4.68	20.00	AVRG	
1,1-Dichloroethane	0.6080000	0.5620200	0.1	-7.56	20.00	AVRG	
cis-1,2-Dichloroethene	0.3680000	0.3480800	0.01	-5.41	20.00	AVRG	
Chloroform	0.6130000	0.5720400	0.01	-6.68	20.00	AVRG	
Carbon Tetrachloride	0.2960000	0.2919900	0.01	-1.35	20.00	AVRG	
1,1,1-Trichloroethane	0.5550000	0.5322200	0.01	-4.10	20.00	AVRG	
2-Butanone	0.1010000	9.46e-002	0.01	-6.34	20.00	AVRG	
Benzene	0.8200000	0.7787900	0.01	-5.02	20.00	AVRG	
1,2-Dichloroethane	0.2680000	0.2456700	0.01	-8.33	20.00	AVRG	
Trichloroethene	0.2180000	0.2071900	0.01	-4.96	20.00	AVRG	
1,2-Dichloropropane	0.1900000	0.1797200	0.01	-5.41	20.00	AVRG	
Bromodichloromethane	0.2880000	0.2766000	0.01	-3.96	20.00	AVRG	
cis-1,3-dichloropropene	0.3140000	0.3049300	0.01	-2.89	20.00	AVRG	
Toluene	0.5360000	0.5005100	0.01	-6.62	20.00	AVRG	
4-methyl-2-pentanone	0.1190000	0.1225700	0.01	3.00	20.00	AVRG	
Tetrachloroethene	0.2060000	0.2002600	0.01	-2.79	20.00	AVRG	
trans-1,3-Dichloropropene	0.2660000	0.2590800	0.01	-2.60	20.00	AVRG	
1,1,2-Trichloroethane	0.1350000	0.1250200	0.01	-7.39	20.00	AVRG	

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-C Calibration Date: 06/29/11 Time: 0937

Lab File ID: C3749 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 0849 1208

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Dibromochloromethane	0.2180000	0.2164700	0.01	-0.70	20.00	AVRG	
1,2-Dibromoethane	0.1700000	0.1585700	0.01	-6.72	20.00	AVRG	
2-Hexanone	9.6e-002	9.64e-002	0.01	0.42	20.00	AVRG	
Chlorobenzene	0.6510000	0.6293400	0.3	-3.33	20.00	AVRG	
Ethylbenzene	0.3530000	0.3413700	0.01	-3.29	20.00	AVRG	
Styrene	0.7050000	0.6932000	0.01	-1.67	20.00	AVRG	
Bromoform	0.1410000	0.1410800	0.1	0.06	20.00	AVRG	
Isopropylbenzene	1.6770000	1.6184000	0.01	-3.49	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.4040000	0.3618600	0.3	-10.43	20.00	AVRG	
1,3-Dichlorobenzene	0.9660000	0.9251900	0.01	-4.22	20.00	AVRG	
1,4-Dichlorobenzene	1.0000000	0.9546200	0.01	-4.54	20.00	AVRG	
1,2-Dichlorobenzene	0.8860000	0.8468100	0.01	-4.42	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	7.4e-002	6.58e-002	0.01	-11.08	20.00	AVRG	
1,2,4-Trichlorobenzene	0.7440000	0.7634500	0.01	2.61	20.00	AVRG	
Freon-113	0.2220000	0.2219200	0.01	-0.04	20.00	AVRG	
Cyclohexane	0.5120000	0.4886200	0.01	-4.57	20.00	AVRG	
Methyl Acetate	0.1940000	0.1665700	0.01	-14.14	20.00	AVRG	
Methylcyclohexane	0.5300000	0.5192300	0.01	-2.03	20.00	AVRG	
Xylenes (total)	0.0000000	0.4238600	0.01	0.00	20.00	AVRG	<-
Dibromofluoromethane	0.3160000	0.2985000	0.01	-5.54	20.00	AVRG	
1,2-Dichloroethane-D4	0.3500000	0.3198800	0.01	-8.60	20.00	AVRG	
Toluene-D8	0.7120000	0.6794500	0.01	-4.57	20.00	AVRG	
P-Bromofluorobenzene	0.2900000	0.2775900	0.01	-4.28	20.00	AVRG	

Average %D/%Drift test result.

Calculate Average %D/%Drift: 5.936250210
Maximum Average %D/%Drift: 20.00000000

Note: Passes Average %D/%Drift Test.

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: CB217 BFB Injection Date: 06/30/11

Instrument ID: GCMS-C BFB Injection Time: 0802

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.3
75	30.0 - 60.0% of mass 95	51.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	88.7
175	5.0 - 9.0% of mass 174	6.8 (7.6)1
176	95.0 - 101.0% of mass 174	88.0 (99.2)1
177	5.0 - 9.0% of mass 176	5.3 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050C30A	C3773	06/30/11	0833
02	WG93495-LCS	WG93495-1	C3774	06/30/11	0949
03	WG93495-BLANK	WG93495-2	C3776A	06/30/11	1214
04	45-SB08-SB-06242011	SE3674-8	C3777	06/30/11	1351
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FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-C Calibration Date: 06/30/11 Time: 0833

Lab File ID: C3773 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 0849 1208

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.4190000	0.4047900	0.01	-3.39	20.00	AVRG
Chloromethane	0.5690000	0.4732900	0.1	-16.82	20.00	AVRG
Vinyl chloride	0.4240000	0.3665900	0.01	-13.54	20.00	AVRG
Bromomethane	0.3600000	0.3179600	0.01	-11.68	20.00	AVRG
Chloroethane	0.2000000	0.2103900	0.01	5.20	20.00	AVRG
Trichlorofluoromethane	0.5520000	0.5775500	0.01	4.63	20.00	AVRG
1,1-Dichloroethene	0.2930000	0.2543700	0.01	-13.18	20.00	AVRG
Carbon Disulfide	1.0920000	0.9462500	0.01	-13.35	20.00	AVRG
Methylene Chloride	0.3720000	0.3172300	0.01	-14.72	20.00	AVRG
Acetone	8.4e-002	9.68e-002	0.01	15.24	20.00	AVRG
trans-1,2-Dichloroethene	0.3590000	0.3088000	0.01	-13.98	20.00	AVRG
Methyl tert-butyl ether	0.7950000	0.7228100	0.01	-9.08	20.00	AVRG
1,1-Dichloroethane	0.6080000	0.5424500	0.1	-10.78	20.00	AVRG
cis-1,2-Dichloroethene	0.3680000	0.3218300	0.01	-12.55	20.00	AVRG
Chloroform	0.6130000	0.5713300	0.01	-6.80	20.00	AVRG
Carbon Tetrachloride	0.2960000	0.3075600	0.01	3.90	20.00	AVRG
1,1,1-Trichloroethane	0.5550000	0.5452000	0.01	-1.76	20.00	AVRG
2-Butanone	0.1010000	0.1071200	0.01	6.06	20.00	AVRG
Benzene	0.8200000	0.7349300	0.01	-10.37	20.00	AVRG
1,2-Dichloroethane	0.2680000	0.2674200	0.01	-0.22	20.00	AVRG
Trichloroethene	0.2180000	0.2079900	0.01	-4.59	20.00	AVRG
1,2-Dichloropropane	0.1900000	0.1704400	0.01	-10.30	20.00	AVRG
Bromodichloromethane	0.2880000	0.2860100	0.01	-0.69	20.00	AVRG
cis-1,3-dichloropropene	0.3140000	0.2992700	0.01	-4.69	20.00	AVRG
Toluene	0.5360000	0.4780000	0.01	-10.82	20.00	AVRG
4-methyl-2-pentanone	0.1190000	0.1288600	0.01	8.28	20.00	AVRG
Tetrachloroethene	0.2060000	0.2412200	0.01	17.10	20.00	AVRG
trans-1,3-Dichloropropene	0.2660000	0.2610900	0.01	-1.84	20.00	AVRG
1,1,2-Trichloroethane	0.1350000	0.1265700	0.01	-6.24	20.00	AVRG

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-C Calibration Date: 06/30/11 Time: 0833

Lab File ID: C3773 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 0849 1208

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Dibromochloromethane	0.2180000	0.2150700	0.01	-1.34	20.00	AVRG	
1,2-Dibromoethane	0.1700000	0.1609500	0.01	-5.32	20.00	AVRG	
2-Hexanone	9.6e-002	0.1010700	0.01	5.28	20.00	AVRG	
Chlorobenzene	0.6510000	0.5966600	0.3	-8.35	20.00	AVRG	
Ethylbenzene	0.3530000	0.3207300	0.01	-9.14	20.00	AVRG	
Styrene	0.7050000	0.6707900	0.01	-4.85	20.00	AVRG	
Bromoform	0.1410000	0.1446100	0.1	2.56	20.00	AVRG	
Isopropylbenzene	1.6770000	1.5059000	0.01	-10.20	20.00	AVRG	
1,1,2,2-Tetrachloroethane	0.4040000	0.3472800	0.3	-14.04	20.00	AVRG	
1,3-Dichlorobenzene	0.9660000	0.8742200	0.01	-9.50	20.00	AVRG	
1,4-Dichlorobenzene	1.0000000	0.9085100	0.01	-9.15	20.00	AVRG	
1,2-Dichlorobenzene	0.8860000	0.8158800	0.01	-7.91	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	7.4e-002	7.12e-002	0.01	-3.78	20.00	AVRG	
1,2,4-Trichlorobenzene	0.7440000	0.6771400	0.01	-8.99	20.00	AVRG	
Freon-113	0.2220000	0.2138900	0.01	-3.65	20.00	AVRG	
Cyclohexane	0.5120000	0.4560200	0.01	-10.93	20.00	AVRG	
Methyl Acetate	0.1940000	0.1570600	0.01	-19.04	20.00	AVRG	
Methylcyclohexane	0.5300000	0.4761400	0.01	-10.16	20.00	AVRG	
Xylenes (total)	0.0000000	0.4016200	0.01	0.00	20.00	AVRG	<-
Dibromofluoromethane	0.3160000	0.2837100	0.01	-10.22	20.00	AVRG	
1,2-Dichloroethane-D4	0.3500000	0.3338400	0.01	-4.62	20.00	AVRG	
Toluene-D8	0.7120000	0.6371900	0.01	-10.51	20.00	AVRG	
P-Bromofluorobenzene	0.2900000	0.2783400	0.01	-4.02	20.00	AVRG	

Average %D/%Drift test result.

Calculate Average %D/%Drift: 9.581568718
Maximum Average %D/%Drift: 20.00000000

Note: Passes Average %D/%Drift Test.

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93448-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: D1612A Lab Sample ID: WG93448-2

Date Analyzed: 06/29/11 Time Analyzed: 1212

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93448-LCS	WG93448-1	D1609	06/29/11	1019
02	-SBRINSATE-06242011	SE3674-16	D1613	06/29/11	1241
03	TB-04	SE3674-18	D1614	06/29/11	1311
04	5-DPT22-60-06232011	SE3674-1	D1615	06/29/11	1341
05	5-DPT22-40-06232011	SE3674-2	D1616	06/29/11	1447
06	5-DPT22-20-06232011	SE3674-3	D1617	06/29/11	1517
07	5-DPT22-12-06232011	SE3674-4	D1618	06/29/11	1547
08	5-DPT22-20-06232011	SE3674-3DL	D1621	06/29/11	1716
09	5-DPT22-12-06232011	SE3674-4DL	D1622	06/29/11	1746
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COMMENTS:

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93448-2
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date:
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	0.36	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	0.25	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	0.49	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	0.55	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	0.24	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.35	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	1.1	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.2	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.25	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.36	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.21	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.21	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.32	ug/L	1	1	1.0	0.32	0.50
Carbon Tetrachloride	U	0.22	ug/L	1	1	1.0	0.22	0.50
1,1,1-Trichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Benzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.20	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.28	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.25	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.19	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.27	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	1.3	ug/L	1	5	5.0	1.3	2.5
Tetrachloroethene	U	0.40	ug/L	1	1	1.0	0.40	0.50
trans-1,3-Dichloropropene	U	0.20	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.33	ug/L	1	1	1.0	0.33	0.50
Dibromochloromethane	U	0.30	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.22	ug/L	1	1	1.0	0.22	0.50
2-Hexanone	U	1.7	ug/L	1	5	5.0	1.7	2.5
Chlorobenzene	U	0.22	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.21	ug/L	1	1	1.0	0.21	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client:
Lab ID: WG93448-2
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date:
Extract Date: 29-JUN-11
Extracted By: DWM
Extraction Method: SW846 5030
Lab Prep Batch: WG93448

Analysis Date: 29-JUN-11
Analyst: DWM
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.23	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.23	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.23	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.38	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.26	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.24	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.15	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	0.50	ug/L	1	1	1.0	0.50	0.75
1,2,4-Trichlorobenzene	U	0.37	ug/L	1	1	1.0	0.37	0.50
Freon-113	U	0.31	ug/L	1	1	1.0	0.31	0.50
Cyclohexane	U	0.31	ug/L	1	1	1.0	0.31	0.50
Methyl acetate	U	0.53	ug/L	1	1	1.0	0.53	0.75
Methylcyclohexane	U	0.30	ug/L	1	1	1.0	0.30	0.50
Total Xylene	U	0.25	ug/L	1	3	3.0	0.25	1.5
P-Bromofluorobenzene		102.	%					
Toluene-d8		111.	%					
1,2-Dichloroethane-d4		106.	%					
Dibromofluoromethane		103.	%					

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FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93458-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: C3752A Lab Sample ID: WG93458-2

Date Analyzed: 06/29/11 Time Analyzed: 1145

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS-C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93458-LCS	WG93458-1	C3750	06/29/11	1026
02	TB-03	SE3674-17	C3753	06/29/11	1217
03	45-SB05-SB-06242011	SE3674-5	C3757	06/29/11	1422
04	45-SB06-SB-06242011	SE3674-6	C3758	06/29/11	1603
05	45-SB07-SB-06242011	SE3674-7	C3759	06/29/11	1635
06	45-SB09-SB-06242011	SE3674-9	C3761	06/29/11	1737
07	45-SB10-SB-06242011	SE3674-10	C3762	06/29/11	1810
08	45-SB11-SB-06242011	SE3674-11	C3763	06/29/11	1843
09	45-SB12-SB-06242011	SE3674-12	C3764	06/29/11	1917
10	AX45-DUP01-06242011	SE3674-13	C3765	06/29/11	1950
11	45-SB14-SB-06242011	SE3674-15	C3766	06/29/11	2023
12	45-SB13-SB-06242011	SE3674-14	C3767	06/29/11	2056
13	45-SB13-SB-06242011	WG93458-3	C3768	06/29/11	2128
14	45-SB13-SB-06242011	WG93458-4	C3769	06/29/11	2201
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

Report of Analytical Results

Client:
Lab ID: WG93458-2
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date:
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.92	ug/Kgdrywt	1	10	10.	0.92	5.0
Chloromethane	U	1.4	ug/Kgdrywt	1	10	10.	1.4	5.0
Vinyl Chloride	U	0.87	ug/Kgdrywt	1	10	10.	0.87	5.0
Bromomethane	U	1.1	ug/Kgdrywt	1	10	10.	1.1	5.0
Chloroethane	U	1.3	ug/Kgdrywt	1	10	10.	1.3	5.0
Trichlorofluoromethane	U	0.91	ug/Kgdrywt	1	10	10.	0.91	5.0
1,1-Dichloroethene	U	0.93	ug/Kgdrywt	1	5	5.0	0.93	2.5
Carbon Disulfide	I	1.1	ug/Kgdrywt	1	5	5.0	0.78	2.5
Methylene Chloride	U	7.9	ug/Kgdrywt	1	25	25.	7.9	12.
Acetone	I	6.8	ug/Kgdrywt	1	25	25.	5.1	12.
trans-1,2-Dichloroethene	U	0.71	ug/Kgdrywt	1	5	5.0	0.71	2.5
Methyl tert-butyl Ether	U	1.1	ug/Kgdrywt	1	5	5.0	1.1	2.5
1,1-Dichloroethane	U	1.7	ug/Kgdrywt	1	5	5.0	1.7	2.5
cis-1,2-Dichloroethene	U	0.91	ug/Kgdrywt	1	5	5.0	0.91	2.5
Chloroform	U	0.35	ug/Kgdrywt	1	5	5.0	0.35	2.5
Carbon Tetrachloride	U	1.3	ug/Kgdrywt	1	5	5.0	1.3	2.5
1,1,1-Trichloroethane	U	0.42	ug/Kgdrywt	1	5	5.0	0.42	2.5
2-Butanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Benzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,2-Dichloroethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
Trichloroethene	U	0.59	ug/Kgdrywt	1	5	5.0	0.59	2.5
1,2-Dichloropropane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Bromodichloromethane	U	0.60	ug/Kgdrywt	1	5	5.0	0.60	2.5
cis-1,3-Dichloropropene	U	0.72	ug/Kgdrywt	1	5	5.0	0.72	2.5
Toluene	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
4-Methyl-2-Pentanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Tetrachloroethene	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
trans-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	5.0	0.86	2.5
1,1,2-Trichloroethane	U	0.97	ug/Kgdrywt	1	5	5.0	0.97	2.5
Dibromochloromethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
1,2-Dibromoethane	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
2-Hexanone	U	4.8	ug/Kgdrywt	1	25	25.	4.8	12.
Chlorobenzene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5
Ethylbenzene	U	0.65	ug/Kgdrywt	1	5	5.0	0.65	2.5

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Report of Analytical Results

Client:
Lab ID: WG93458-2
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date:
Extract Date: 29-JUN-11
Extracted By: DJP
Extraction Method: SW846 5035
Lab Prep Batch: WG93458

Analysis Date: 29-JUN-11
Analyst: DJP
Analysis Method: SW846 8260B
Matrix: SL
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5
Bromoform	U	0.70	ug/Kgdrywt	1	5	5.0	0.70	2.5
Isopropylbenzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,1,2,2-Tetrachloroethane	U	0.84	ug/Kgdrywt	1	5	5.0	0.84	2.5
1,3-Dichlorobenzene	U	0.62	ug/Kgdrywt	1	5	5.0	0.62	2.5
1,4-Dichlorobenzene	U	0.44	ug/Kgdrywt	1	5	5.0	0.44	2.5
1,2-Dichlorobenzene	U	0.78	ug/Kgdrywt	1	5	5.0	0.78	2.5
1,2-Dibromo-3-Chloropropane	U	1.5	ug/Kgdrywt	1	5	5.0	1.5	2.5
1,2,4-Trichlorobenzene	U	0.79	ug/Kgdrywt	1	5	5.0	0.79	2.5
Freon-113	U	0.90	ug/Kgdrywt	1	5	5.0	0.90	2.5
Cyclohexane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Methyl acetate	U	2.7	ug/Kgdrywt	1	5	5.0	2.7	3.0
Methylcyclohexane	U	0.96	ug/Kgdrywt	1	5	5.0	0.96	2.5
Total Xylene	U	1.3	ug/Kgdrywt	1	15	15.	1.3	7.5
p-Bromofluorobenzene		107.	%					
Toluene-D8		106.	%					
1,2-Dichloroethane-D4		104.	%					
Dibromofluoromethane		104.	%					

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FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93495-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: C3776A Lab Sample ID: WG93495-2

Date Analyzed: 06/30/11 Time Analyzed: 1214

GC Column: ~~RTX-VMS~~ ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS-C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93495-LCS	WG93495-1	C3774	06/30/11	0949
02	45-SB08-SB-06242011	SE3674-8	C3777	06/30/11	1351
03					
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COMMENTS:

FORM IVVOA

Report of Analytical Results

Client:
Lab ID: WG93495-2
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date:
Extract Date: 30-JUN-11
Extracted By: JSS
Extraction Method: SW846 5035
Lab Prep Batch: WG93495

Analysis Date: 30-JUN-11
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: SL
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	0.92	ug/Kgdrywt	1	10	10.	0.92	5.0
Chloromethane	U	1.4	ug/Kgdrywt	1	10	10.	1.4	5.0
Vinyl Chloride	U	0.87	ug/Kgdrywt	1	10	10.	0.87	5.0
Bromomethane	U	1.1	ug/Kgdrywt	1	10	10.	1.1	5.0
Chloroethane	U	1.3	ug/Kgdrywt	1	10	10.	1.3	5.0
Trichlorofluoromethane	U	0.91	ug/Kgdrywt	1	10	10.	0.91	5.0
1,1-Dichloroethene	U	0.93	ug/Kgdrywt	1	5	5.0	0.93	2.5
Carbon Disulfide	I	1.2	ug/Kgdrywt	1	5	5.0	0.78	2.5
Methylene Chloride	U	7.9	ug/Kgdrywt	1	25	25.	7.9	12.
Acetone	I	6.1	ug/Kgdrywt	1	25	25.	5.1	12.
trans-1,2-Dichloroethene	U	0.71	ug/Kgdrywt	1	5	5.0	0.71	2.5
Methyl tert-butyl Ether	U	1.1	ug/Kgdrywt	1	5	5.0	1.1	2.5
1,1-Dichloroethane	U	1.7	ug/Kgdrywt	1	5	5.0	1.7	2.5
cis-1,2-Dichloroethene	U	0.91	ug/Kgdrywt	1	5	5.0	0.91	2.5
Chloroform	U	0.35	ug/Kgdrywt	1	5	5.0	0.35	2.5
Carbon Tetrachloride	U	1.3	ug/Kgdrywt	1	5	5.0	1.3	2.5
1,1,1-Trichloroethane	U	0.42	ug/Kgdrywt	1	5	5.0	0.42	2.5
2-Butanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Benzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,2-Dichloroethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
Trichloroethene	U	0.59	ug/Kgdrywt	1	5	5.0	0.59	2.5
1,2-Dichloropropane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Bromodichloromethane	U	0.60	ug/Kgdrywt	1	5	5.0	0.60	2.5
cis-1,3-Dichloropropene	U	0.72	ug/Kgdrywt	1	5	5.0	0.72	2.5
Toluene	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
4-Methyl-2-Pentanone	U	5.9	ug/Kgdrywt	1	25	25.	5.9	12.
Tetrachloroethene	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
trans-1,3-Dichloropropene	U	0.86	ug/Kgdrywt	1	5	5.0	0.86	2.5
1,1,2-Trichloroethane	U	0.97	ug/Kgdrywt	1	5	5.0	0.97	2.5
Dibromochloromethane	U	1.0	ug/Kgdrywt	1	5	5.0	1.0	2.5
1,2-Dibromoethane	U	1.2	ug/Kgdrywt	1	5	5.0	1.2	2.5
2-Hexanone	U	4.8	ug/Kgdrywt	1	25	25.	4.8	12.
Chlorobenzene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5
Ethylbenzene	U	0.65	ug/Kgdrywt	1	5	5.0	0.65	2.5

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Report of Analytical Results

Client:
Lab ID: WG93495-2
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date:
Extract Date: 30-JUN-11
Extracted By: JSS
Extraction Method: SW846 5035
Lab Prep Batch: WG93495

Analysis Date: 30-JUN-11
Analyst: JSS
Analysis Method: SW846 8260B
Matrix: SL
% Solids: NA
Report Date: 12-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Styrene	U	0.51	ug/Kgdrywt	1	5	5.0	0.51	2.5
Bromoform	U	0.70	ug/Kgdrywt	1	5	5.0	0.70	2.5
Isopropylbenzene	U	0.92	ug/Kgdrywt	1	5	5.0	0.92	2.5
1,1,2,2-Tetrachloroethane	U	0.84	ug/Kgdrywt	1	5	5.0	0.84	2.5
1,3-Dichlorobenzene	U	0.62	ug/Kgdrywt	1	5	5.0	0.62	2.5
1,4-Dichlorobenzene	U	0.44	ug/Kgdrywt	1	5	5.0	0.44	2.5
1,2-Dichlorobenzene	U	0.78	ug/Kgdrywt	1	5	5.0	0.78	2.5
1,2-Dibromo-3-Chloropropane	U	1.5	ug/Kgdrywt	1	5	5.0	1.5	2.5
1,2,4-Trichlorobenzene	U	0.79	ug/Kgdrywt	1	5	5.0	0.79	2.5
Freon-113	U	0.90	ug/Kgdrywt	1	5	5.0	0.90	2.5
Cyclohexane	U	1.4	ug/Kgdrywt	1	5	5.0	1.4	2.5
Methyl acetate	U	2.7	ug/Kgdrywt	1	5	5.0	2.7	3.0
Methylcyclohexane	U	0.96	ug/Kgdrywt	1	5	5.0	0.96	2.5
Total Xylene	U	1.3	ug/Kgdrywt	1	15	15.	1.3	7.5
p-Bromofluorobenzene		107.	%					
Toluene-D8		100.	%					
1,2-Dichloroethane-D4		104.	%					
Dibromofluoromethane		100.	%					

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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: GD797 DFTPP Injection Date: 06/28/11

Instrument ID: GCMS-G DFTPP Injection Time: 1233

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.8
68	Less than 2.0% of mass 69	0.3 (0.6)1
69	Less than 100.0% of mass 198	48.0
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	59.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.0
365	1.0 - 100.0% of mass 198	4.0
441	0.0 - 100.0% of mass 443	9.9 (75.9)2
442	40.0 - 100.0% of mass 198	67.5
443	17.0 - 23.0% of mass 442	13.0 (19.2)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0628	G1614	06/28/11	1254
02		SSTD8.00G0628	G1615	06/28/11	1345
03		SSTD5.00G0628	G1616	06/28/11	1429
04		SSTD2.00G0628	G1617	06/28/11	1512
05		SSTD0.50G0628	G1618	06/28/11	1555
06		SSTD0.20G0628	G1619	06/28/11	1639
07		SIM IND CHECK	G1621	06/28/11	1806
08					
09					
10					
11					
12					
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17					
18					
19					
20					

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GCMS-G Calibration Date(s): 06/28/11 06/28/11

Column: ZB5-MS ID: 0.25 (mm) Calibration Time(s): 1254 1639

LAB FILE ID: RF0.2: G1619 RF0.5: G1618 RF1: G1614
RF2: G1617 RF5: G1616 RF8: G1615

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF5	RF8	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
1-Methylnaphthalene	0.564	0.584	0.560	0.549	0.517	0.511	AVRG		0.54754572	5.165	15.000
Naphthalene	0.876	0.904	0.890	0.859	0.809	0.801	AVRG		0.85649311	4.972	15.000
2-Methylnaphthalene	29325	60225	110440	219420	496900	957090	LINR	-0.1934740	1.93340921	0.99869	0.99000
Acenaphthylene	1.696	1.733	1.681	1.643	1.635	1.670	AVRG		1.67638405	2.141	15.000
Acenaphthene	1.052	1.086	1.089	1.037	1.013	1.027	AVRG		1.05069170	2.944	15.000
Fluorene	1.123	1.187	1.192	1.147	1.152	1.218	AVRG		1.16987671	2.998	15.000
Phenanthrene	0.957	1.008	1.043	0.994	0.972	0.991	AVRG		0.99433957	2.986	15.000
Anthracene	0.952	0.950	1.011	0.926	0.892	0.964	AVRG		0.94907756	4.155	15.000
Fluoranthene	0.886	0.915	0.895	0.926	0.882	0.957	AVRG		0.91012216	3.168	15.000
Pyrene	1.795	1.864	2.005	1.694	1.888	1.715	AVRG		1.82652043	6.388	15.000
Benzo(a)anthracene	0.845	0.997	1.075	1.026	1.000	1.027	AVRG		0.99527568	7.900	15.000
Chrysene	1.380	1.255	1.196	1.067	1.055	1.026	AVRG		1.16320880	11.922	15.000
Benzo(b)fluoranthene	0.948	1.087	1.155	1.134	1.080	1.200	AVRG		1.10068930	7.894	15.000
Benzo(k)fluoranthene	1.638	1.702	1.461	1.434	1.382	1.366	AVRG		1.49720173	9.327	15.000
Benzo(a)pyrene	0.948	1.044	1.038	1.033	1.008	1.040	AVRG		1.01852293	3.617	15.000
Indeno(1,2,3-cd)pyrene	4553	9411	21501	55733	132380	296120	LINR	0.18423987	1.54202177	0.99815	0.99000
Dibenzo(a,h)anthracene	0.512	0.565	0.706	0.661	0.710	0.679	AVRG		0.63877965	12.783	15.000
Benzo(g,h,i)perylene	0.832	0.892	0.877	0.820	0.838	0.751	AVRG		0.83471055	5.937	15.000
2-Methylnaphthalene-D10	0.970	1.022	1.045	1.014	0.993	0.982	AVRG		1.00427588	2.765	15.000
Fluorene-D10	1.422	1.322	1.260	1.118	1.011	1.062	AVRG		1.19919628	13.410	15.000
Pyrene-D10	1.136	1.216	1.281	1.091	1.225	1.119	AVRG		1.17815581	6.241	15.000

FORM VI SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: GD798 DFTPP Injection Date: 06/29/11

Instrument ID: GCMS-G DFTPP Injection Time: 1355

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	45.7
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	40.0 - 60.0% of mass 198	58.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	22.2
365	1.0 - 100.0% of mass 198	3.8
441	0.0 - 100.0% of mass 443	9.2 (75.6)2
442	40.0 - 100.0% of mass 198	58.4
443	17.0 - 23.0% of mass 442	12.2 (20.9)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0628	G1622	06/29/11	1413
02	WG93366-BLANK	WG93366-1	G1623	06/29/11	1456
03	45-SB05-SB-06242011	SE3674-5	G1624	06/29/11	1540
04	45-SB07-SB-06242011	SE3674-7	G1626	06/29/11	1707
05	45-SB09-SB-06242011	SE3674-9	G1628	06/29/11	1833
06	45-SB10-SB-06242011	SE3674-10	G1629	06/29/11	1917
07	45-SB11-SB-06242011	SE3674-11	G1630	06/29/11	2000
08	45-SB12-SB-06242011	SE3674-12	G1631	06/29/11	2043
09	AX45-DUP01-06242011	SE3674-13	G1632	06/29/11	2127
10	45-SB13-SB-06242011	SE3674-14	G1633	06/29/11	2210
11	45-SB14-SB-06242011	SE3674-15	G1634	06/29/11	2254
12	45-SB13-SB-06242011	WG93366-4	G1635	06/29/11	2337
13	45-SB13-SB-06242011	WG93366-5	G1636	06/30/11	0020
14	WG93366-LCS	WG93366-2	G1637	06/30/11	0104
15	WG93366-LCSD	WG93366-3	G1638	06/30/11	0147
16					
17					
18					
19					
20					

FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-G Calibration Date: 06/29/11 Time: 1413

Lab File ID: G1622 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 1254 1254

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
1-Methylnaphthalene	0.5600000	0.5651200	0.01	0.91	20.00	AVRG	
Naphthalene	0.8900000	0.8702600	0.01	-2.22	20.00	AVRG	
2-Methylnaphthalene	0.6280000	0.6439900	0.01	2.55	20.00	AVRG	
Acenaphthylene	1.6810000	1.6649000	0.01	-0.96	20.00	AVRG	
Acenaphthene	1.0890000	1.0443000	0.01	-4.10	20.01	AVRG	
Fluorene	1.1920000	1.1664000	0.01	-2.15	20.00	AVRG	
Phenanthrene	1.0430000	0.9691800	0.01	-7.08	20.00	AVRG	
Anthracene	1.0110000	0.9144200	0.01	-9.55	20.00	AVRG	
Fluoranthene	0.8950000	0.8975200	0.01	0.28	20.01	AVRG	
Pyrene	2.0050000	1.7920000	0.01	-10.62	20.00	AVRG	
Benzo(a)anthracene	1.0750000	0.9343600	0.01	-13.08	20.00	AVRG	
Chrysene	1.1960000	1.2104000	0.01	1.20	20.00	AVRG	
Benzo(b)fluoranthene	1.1550000	0.9978600	0.01	-13.60	20.00	AVRG	
Benzo(k)fluoranthene	1.4610000	1.4550000	0.01	-0.41	20.00	AVRG	
Benzo(a)pyrene	1.0380000	0.9629300	0.01	-7.23	20.01	AVRG	
Indeno(1,2,3-cd)pyrene	0.5400000	0.4286100	0.01	-20.63	20.00	AVRG	<-
Dibenzo(a,h)anthracene	0.7060000	0.5715300	0.01	-19.05	20.00	AVRG	
Benzo(g,h,i)perylene	0.8770000	0.8300500	0.01	-5.35	20.00	AVRG	
2-Methylnaphthalene-D10	1.0450000	1.0457000	0.01	0.07	20.00	AVRG	
Fluorene-D10	1.2600000	1.2534000	0.01	-0.52	20.00	AVRG	
Pyrene-D10	1.2810000	1.2052000	0.01	-5.92	20.00	AVRG	

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: GD799 DFTPP Injection Date: 06/30/11

Instrument ID: GCMS-G DFTPP Injection Time: 0744

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.3
68	Less than 2.0% of mass 69	0.5 (1.2)1
69	Less than 100.0% of mass 198	45.3
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	40.0 - 60.0% of mass 198	58.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.5
365	1.0 - 100.0% of mass 198	4.0
441	0.0 - 100.0% of mass 443	6.0 (50.0)2
442	40.0 - 100.0% of mass 198	66.0
443	17.0 - 23.0% of mass 442	12.0 (18.3)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0630	G1640	06/30/11	0845
02	45-SB06-SB-06242011	SE3674-6DL	G1641	06/30/11	0928
03	45-SB07-SB-06242011	SE3674-7DL	G1642	06/30/11	1011
04	45-SB11-SB-06242011	SE3674-11DL	G1643	06/30/11	1054
05	AX45-DUP01-06242011	SE3674-13DL	G1644	06/30/11	1138
06	45-SB08-SB-06242011	SE3674-8	G1645	06/30/11	1221
07	45-SB09-SB-06242011	SE3674-9RA	G1646	06/30/11	1304
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-G Calibration Date: 06/30/11 Time: 0845

Lab File ID: G1640 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 1254 1254

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
1-Methylnaphthalene	0.5600000	0.5735100	0.01	2.41	20.00	AVRG	
Naphthalene	0.8900000	0.8325500	0.01	-6.46	20.00	AVRG	
2-Methylnaphthalene	0.6280000	0.6569500	0.01	4.61	20.00	AVRG	
Acenaphthylene	1.6810000	1.5882000	0.01	-5.52	20.00	AVRG	
Acenaphthene	1.0890000	1.0105000	0.01	-7.21	20.01	AVRG	
Fluorene	1.1920000	1.1483000	0.01	-3.67	20.00	AVRG	
Phenanthrene	1.0430000	0.8317400	0.01	-20.26	20.00	AVRG	<-
Anthracene	1.0110000	0.8589100	0.01	-15.04	20.00	AVRG	
Fluoranthene	0.8950000	0.7917300	0.01	-11.54	20.01	AVRG	
Pyrene	2.0050000	1.5344000	0.01	-23.47	20.00	AVRG	<-
Benzo(a)anthracene	1.0750000	0.8306000	0.01	-22.74	20.00	AVRG	<-
Chrysene	1.1960000	1.2377000	0.01	3.49	20.00	AVRG	
Benzo(b)fluoranthene	1.1550000	0.9703900	0.01	-15.98	20.00	AVRG	
Benzo(k)fluoranthene	1.4610000	1.4180000	0.01	-2.94	20.00	AVRG	
Benzo(a)pyrene	1.0380000	0.9294200	0.01	-10.46	20.01	AVRG	
Indeno(1,2,3-cd)pyrene	0.5400000	0.3813900	0.01	-29.37	20.00	AVRG	<-
Dibenzo(a,h)anthracene	0.7060000	0.5779100	0.01	-18.14	20.00	AVRG	
Benzo(g,h,i)perylene	0.8770000	0.7414000	0.01	-15.46	20.00	AVRG	
2-Methylnaphthalene-D10	1.0450000	0.9739300	0.01	-6.80	20.00	AVRG	
Fluorene-D10	1.2600000	1.2263000	0.01	-2.67	20.00	AVRG	
Pyrene-D10	1.2810000	1.0337000	0.01	-19.30	20.00	AVRG	

FORM VII PEST

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: GD800 DFTPP Injection Date: 07/01/11

Instrument ID: GCMS-G DFTPP Injection Time: 0648

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.5
68	Less than 2.0% of mass 69	0.2 (0.5)1
69	Less than 100.0% of mass 198	43.4
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	56.4
197	Less than 1.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	24.6
365	1.0 - 100.0% of mass 198	4.3
441	0.0 - 100.0% of mass 443	10.4 (79.7)2
442	40.0 - 100.0% of mass 198	68.2
443	17.0 - 23.0% of mass 442	13.1 (19.2)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0701	G1656	07/01/11	0706
02	45-SB06-SB-06242011	SE3674-6	G1661	07/01/11	1040
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
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16					
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18					
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20					

FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-G Calibration Date: 07/01/11 Time: 0706

Lab File ID: G1656 Init. Calib. Date(s): 06/28/11 06/28/11

Init. Calib. Times: 1254 1254

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1-Methylnaphthalene	0.5600000	0.5711500	0.01	1.99	20.00	AVRG
Naphthalene	0.8900000	0.8553700	0.01	-3.89	20.00	AVRG
2-Methylnaphthalene	0.6280000	0.6764400	0.01	7.71	20.00	AVRG
Acenaphthylene	1.6810000	1.6429000	0.01	-2.27	20.00	AVRG
Acenaphthene	1.0890000	1.0266000	0.01	-5.73	20.01	AVRG
Fluorene	1.1920000	1.1892000	0.01	-0.23	20.00	AVRG
Phenanthrene	1.0430000	0.9472200	0.01	-9.18	20.00	AVRG
Anthracene	1.0110000	0.9443400	0.01	-6.59	20.00	AVRG
Fluoranthene	0.8950000	0.8602000	0.01	-3.89	20.01	AVRG
Pyrene	2.0050000	1.6812000	0.01	-16.15	20.00	AVRG
Benzo(a)anthracene	1.0750000	0.9705800	0.01	-9.71	20.00	AVRG
Chrysene	1.1960000	1.1495000	0.01	-3.89	20.00	AVRG
Benzo(b)fluoranthene	1.1550000	0.9346100	0.01	-19.08	20.00	AVRG
Benzo(k)fluoranthene	1.4610000	1.5423000	0.01	5.56	20.00	AVRG
Benzo(a)pyrene	1.0380000	1.0170000	0.01	-2.02	20.01	AVRG
Indeno(1,2,3-cd)pyrene	0.5400000	0.5667300	0.01	4.95	20.00	AVRG
Dibenzo(a,h)anthracene	0.7060000	0.7784200	0.01	10.26	20.00	AVRG
Benzo(g,h,i)perylene	0.8770000	0.9090500	0.01	3.65	20.00	AVRG
2-Methylnaphthalene-D10	1.0450000	0.9892500	0.01	-5.33	20.00	AVRG
Fluorene-D10	1.2600000	1.2410000	0.01	-1.51	20.00	AVRG
Pyrene-D10	1.2810000	1.1360000	0.01	-11.32	20.00	AVRG

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93366-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: G1623 Lab Sample ID: WG93366-1

Instrument ID: GCMS-G Date Extracted: 06/27/11

Matrix: (soil/water) SOIL Date Analyzed: 06/29/11

Level:(low/med) LOW Time Analyzed: 1456

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	45-SB05-SB-06242011	SE3674-5	G1624	06/29/11	1540
02	45-SB07-SB-06242011	SE3674-7	G1626	06/29/11	1707
03	45-SB09-SB-06242011	SE3674-9	G1628	06/29/11	1833
04	45-SB10-SB-06242011	SE3674-10	G1629	06/29/11	1917
05	45-SB11-SB-06242011	SE3674-11	G1630	06/29/11	2000
06	45-SB12-SB-06242011	SE3674-12	G1631	06/29/11	2043
07	AX45-DUP01-06242011	SE3674-13	G1632	06/29/11	2127
08	45-SB13-SB-06242011	SE3674-14	G1633	06/29/11	2210
09	45-SB14-SB-06242011	SE3674-15	G1634	06/29/11	2254
10	45-SB13-SB-06242011	WG93366-4	G1635	06/29/11	2337
11	45-SB13-SB-06242011	WG93366-5	G1636	06/30/11	0020
12	WG93366-LCS	WG93366-2	G1637	06/30/11	0104
13	WG93366-LCSD	WG93366-3	G1638	06/30/11	0147
14	45-SB06-SB-06242011	SE3674-6DL	G1641	06/30/11	0928
15	45-SB07-SB-06242011	SE3674-7DL	G1642	06/30/11	1011
16	45-SB11-SB-06242011	SE3674-11DL	G1643	06/30/11	1054
17	AX45-DUP01-06242011	SE3674-13DL	G1644	06/30/11	1138
18	45-SB08-SB-06242011	SE3674-8	G1645	06/30/11	1221
19	45-SB09-SB-06242011	SE3674-9RA	G1646	06/30/11	1304
20	45-SB06-SB-06242011	SE3674-6	G1661	07/01/11	1040
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93366-1
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date: 27-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: NA
Report Date: 05-jul-2011 10:25

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Naphthalene	U	2.6	ug/Kgdrywt	1	20	20.	2.6	10.
1-Methylnaphthalene	U	1.7	ug/Kgdrywt	1	20	20.	1.7	10.
2-Methylnaphthalene	U	2.2	ug/Kgdrywt	1	20	20.	2.2	10.
Acenaphthylene	U	1.2	ug/Kgdrywt	1	20	20.	1.2	10.
Acenaphthene	U	1.5	ug/Kgdrywt	1	20	20.	1.5	10.
Fluorene	U	3.2	ug/Kgdrywt	1	20	20.	3.2	10.
Phenanthrene	U	1.8	ug/Kgdrywt	1	20	20.	1.8	10.
Anthracene	U	1.2	ug/Kgdrywt	1	20	20.	1.2	10.
Fluoranthene	U	1.8	ug/Kgdrywt	1	20	20.	1.8	10.
Pyrene	U	2.1	ug/Kgdrywt	1	20	20.	2.1	10.
Benzo (a) anthracene	U	1.9	ug/Kgdrywt	1	20	20.	1.9	10.
Chrysene	U	1.7	ug/Kgdrywt	1	20	20.	1.7	10.
Benzo (b) Fluoranthene	U	2.4	ug/Kgdrywt	1	20	20.	2.4	10.
Benzo(k)fluoranthene	U	3.1	ug/Kgdrywt	1	20	20.	3.1	10.
Benzo(a)pyrene	U	3.3	ug/Kgdrywt	1	20	20.	3.3	10.
Indeno (1,2,3-cd) pyrene	U	1.9	ug/Kgdrywt	1	20	20.	1.9	10.
Dibenzo (a,h) anthracene	U	1.8	ug/Kgdrywt	1	20	20.	1.8	10.
Benzo(g,h,i)perylene	U	2.0	ug/Kgdrywt	1	20	20.	2.0	10.
2-Methylnaphthalene-D10		38.9	%					
Fluorene-D10		28.4	%					
Pyrene-D10		43.3	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

MS/MSD Recovery Report

MS ID: WG93366-4
MSD ID: WG93366-5
Sample ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project:
SDG: JAX04

Received Date: 25-JUN-11
Extract Date: 27-jun-0011 00:00
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93366
Report Date: 05-jul-2011 10:25

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 M8270D
Matrix: SL
% Solids: 80.

Compound	MS Spike	MSD Spike	Conc Units	Samp Conc	MS Conc	MSD Conc	MS Rec (%)	MSD Rec (%)	RPD (%)	RPD Limit	Limits
Naphthalene	80.0	82.9	ug/Kgdrywt	I4.0	J31.	J37.	34.0	39.9	17	50	40-100
1-Methylnaphthalene	80.0	82.9	ug/Kgdrywt	I3.2	J33.	41.	36.8	45.2	22	50	40-100
2-Methylnaphthalene	80.0	82.9	ug/Kgdrywt	I3.0	J34.	41.	39.1	45.6	17	50	40-100
Acenaphthylene	80.0	82.9	ug/Kgdrywt	I3.8	J31.	40.	34.3	43.1	23	50	40-100
Acenaphthene	80.0	82.9	ug/Kgdrywt	I8.7	J33.	44.	30.6	43.2	29	50	40-100
Fluorene	80.0	82.9	ug/Kgdrywt	I6.0	J34.	46.	35.1	47.6	29	50	40-100
Phenanthrene	80.0	82.9	ug/Kgdrywt	76.	J70.	J100	0	32.9	38	50	40-100
Anthracene	80.0	82.9	ug/Kgdrywt	I7.9	J36.	50.	34.7	50.2	33	50	40-100
Fluoranthene	80.0	82.9	ug/Kgdrywt	150	J110	J160	0	21.7	37	50	40-100
Pyrene	80.0	82.9	ug/Kgdrywt	120	J87.	J130	0	18.1	40	50	40-100
Benzo (a) anthracene	80.0	82.9	ug/Kgdrywt	72.	J62.	J90.	0	21.5	37	50	40-100
Chrysene	80.0	82.9	ug/Kgdrywt	89.	J75.	J100	0	17.8	33	50	40-100
Benzo (b) Fluoranthene	80.0	82.9	ug/Kgdrywt	160	J120	J180	0	20.5	42	50	40-100
Benzo(k)fluoranthene	80.0	82.9	ug/Kgdrywt	49.	92.	J140	54.2	112.	42	50	40-100
Benzo(a)pyrene	80.0	82.9	ug/Kgdrywt	93.	J79.	J120	0	31.1	40	50	40-100
Indeno (1,2,3-cd) pyrene	80.0	82.9	ug/Kgdrywt	96.	J96.	140	1.00	53.7	37	50	40-100
Dibenzo (a,h) anthracene	80.0	82.9	ug/Kgdrywt	J19.	J32.	J47.	16.2	34.4	39	50	40-100
Benzo(g,h,i)perylene	80.0	82.9	ug/Kgdrywt	78.	J79.	110	1.88	41.2	34	50	40-100
2-Methylnaphthalene-D10							33.4	40.3			19-94
Fluorene-D10							33.5	40.3			20-96
Pyrene-D10							38.4	49.4			31-128

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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: UD599 DFTPP Injection Date: 06/27/11

Instrument ID: GCMS-U DFTPP Injection Time: 1021

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	30.9
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Less than 100.0% of mass 198	38.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	52.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.1
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	12.7 (80.5)2
442	40.0 - 100.0% of mass 198	82.5
443	17.0 - 23.0% of mass 442	15.8 (19.1)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0627	U6263D	06/27/11	1042
02		SSTD010U0627	U6264D	06/27/11	1126
03		SSTD025U0627	U6265D	06/27/11	1211
04		SSTD075U0627	U6266D	06/27/11	1255
05		SSTD100U0627	U6267D	06/27/11	1339
06		SSTD125U0627	U6268D	06/27/11	1424
07		8270 IND CHECK	U6269D	06/27/11	1508
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FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GCMS-U Calibration Date(s): 06/27/11 06/27/11

Column: ZB5-MS ID: 0.25 (mm) Calibration Time(s): 1042 1424

LAB FILE ID: RF10: U6264D RF25: U6265D RF50: U6263D
RF75: U6266D RF100: U6267D RF125: U6268D

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2	
Phenol	1.382	1.403	1.328	1.249	1.258	1.232	AVRG		1.30876516		5.580	20.000	
Bis(2-Chloroethyl)ether	1.071	1.083	1.035	0.954	0.956	0.965	AVRG		1.01054887		5.877	20.000	
2-Chlorophenol	1.227	1.210	1.148	1.051	1.010	0.965	AVRG		1.10188054		9.876	20.000	
2,2'-Oxybis(1-chloropropa	1.319	1.330	1.230	1.135	1.104	1.056	AVRG		1.19552907		9.596	20.000	
2-Methylphenol	1.060	1.080	1.032	0.962	0.944	0.926	AVRG		1.00065327		6.495	20.000	
Hexachloroethane	0.552	0.541	0.524	0.473	0.465	0.450	AVRG		0.50099532		8.660	20.000	
N-Nitroso-di-n-propylamin	0.673	0.662	0.601	0.557	0.587	0.576	AVRG		0.60926937		7.769	20.000	
3&4-Methylphenol	1.061	1.119	1.087	1.018	1.026	1.016	AVRG		1.05479739		4.002	20.000	
Nitrobenzene	0.333	0.318	0.302	0.279	0.277	0.263	AVRG		0.29538425		9.071	20.000	
Isophorone	0.556	0.555	0.528	0.484	0.500	0.480	AVRG		0.51748025		6.615	20.000	
2-Nitrophenol	0.174	0.181	0.184	0.167	0.172	0.166	AVRG		0.17392372		4.221	20.000	
2,4-Dimethylphenol	0.306	0.315	0.299	0.274	0.274	0.251	AVRG		0.28631629		8.412	20.000	
Bis(2-Chloroethoxy)methan	0.454	0.451	0.434	0.325	0.326	0.313	AVRG		0.38400710		17.973	20.000	
2,4-Dichlorophenol	0.252	0.264	0.264	0.239	0.242	0.218	AVRG		0.24664864		6.973	20.000	
4-Chloroaniline	0.371	0.361	0.328	0.277	0.270	0.266	AVRG		0.31223741		15.210	20.000	
Hexachlorobutadiene	0.163	0.166	0.156	0.140	0.138	0.128	AVRG		0.14853166		10.395	20.000	
4-Chloro-3-Methylphenol	0.242	0.254	0.235	0.226	0.234	0.225	AVRG		0.23599899		4.520	20.000	
2,4,6-Trichlorophenol	0.334	0.349	0.336	0.308	0.294	0.292	AVRG		0.31887884		7.560	20.000	
2,4,5-Trichlorophenol	0.336	0.358	0.350	0.324	0.319	0.318	AVRG		0.33433867		5.061	20.000	
2-Chloronaphthalene	1.601	1.481	1.383	1.217	1.156	1.108	AVRG		1.32426277		14.774	20.000	
2-Nitroaniline	0.247	0.261	0.246	0.237	0.232	0.215	AVRG		0.23992256		6.508	20.000	
Dimethyl Phthalate	1.095	1.012	0.968	0.840	0.841	0.867	AVRG		0.93715057		11.198	20.000	
2,6-Dinitrotoluene	0.250	0.254	0.248	0.228	0.230	0.230	AVRG		0.24015711		5.008	20.000	
3-Nitroaniline	0.234	0.254	0.245	0.235	0.233	0.246	AVRG		0.24105227		3.446	20.000	
2,4-Dinitrophenol	14461	56749	124530	171700	277320	347430	2ORDR	4.007e-002	8.04672040	-2.5935800	0.99730	0.99000	
Dibenzofuran	1.350	1.336	1.273	1.155	1.111	1.120	AVRG		1.22398841		8.886	20.000	
4-Nitrophenol	0.139	0.171	0.180	0.175	0.166	0.181	AVRG		0.16880481		9.196	20.000	
2,4-Dinitrotoluene	1.000	0.978	0.923	0.832	0.800	0.827	AVRG		0.89328499		9.531	20.000	
Diethylphthalate	1.112	1.084	1.011	0.896	0.814	0.799	AVRG		0.95282959		14.270	20.000	
4-Chlorophenyl-phenylethe	0.512	0.498	0.478	0.425	0.400	0.399	AVRG		0.45209347		11.178	20.000	<-
4-Nitroaniline	0.198	0.202	0.210	0.201	0.187	0.202	AVRG		0.20005862		3.693	20.000	
4,6-Dinitro-2-Methylpheno	0.092	0.118	0.124	0.115	0.121	0.123	AVRG		0.11564313		10.394	20.000	
N-Nitrosodiphenylamine	0.594	0.614	0.572	0.501	0.502	0.479	AVRG		0.54377675		10.428	20.000	
4-Bromophenyl-phenylether	0.183	0.186	0.177	0.152	0.162	0.160	AVRG		0.17008135		8.052	20.000	
Hexachlorobenzene	0.224	0.237	0.226	0.201	0.213	0.206	AVRG		0.21793019		6.140	20.000	
Pentachlorophenol	0.099	0.120	0.128	0.117	0.120	0.121	AVRG		0.11756615		8.447	20.000	
Carbazole	0.783	0.824	0.805	0.710	0.684	0.708	AVRG		0.75232691		7.844	20.000	
Di-n-butylphthalate	1.145	1.217	1.162	1.000	0.952	0.941	AVRG		1.0694733		11.166	20.000	
Butylbenzylphthalate	0.608	0.621	0.619	0.547	0.560	0.525	AVRG		0.58008987		7.126	20.000	
3,3'-Dichlorobenzidine	0.254	0.264	0.268	0.237	0.238	0.227	AVRG		0.24783923		6.662	20.000	
bis(2-Ethylhexyl)phthalat	0.848	0.877	0.860	0.752	0.774	0.729	AVRG		0.80674365		7.779	20.000	
Di-n-octylphthalate	1.505	1.677	1.640	1.467	1.507	1.382	AVRG		1.52945961		7.203	20.000	
1,1'-Biphenyl	1.300	1.249	1.187	1.068	0.992	0.968	AVRG		1.12729921		12.239	20.000	
Caprolactam	0.076	0.086	0.077	0.073	0.079	0.086	AVRG		7.967e-002		6.675	20.000	

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GCMS-U Calibration Date(s): 06/27/11 06/27/11

Column: ZB5-MS ID: 0.25 (mm) Calibration Time(s): 1042 1424

LAB FILE ID: RF10: U6264D RF25: U6265D RF50: U6263D
RF75: U6266D RF100: U6267D RF125: U6268D

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	COEFFICENTS A1	COEFFICENTS A2	%RSD OR R^2	MAX %RSD OR R^2
Benzaldehyde	0.366	0.359	0.319	0.276	0.246	0.246	AVRG		0.30205933		17.782	20.000
Acetophenone	0.419	0.406	0.391	0.355	0.357	0.331	AVRG		0.37643535		9.095	20.000
Atrazine	45757	112730	183400	231440	303010	321890	2ORDR	7.147e-002	1.91605822	26.6248384	0.99359	0.99000
Hexachlorocyclopentadiene	0.282	0.311	0.326	0.298	0.297	0.317	AVRG		0.30519520		5.238	20.000
2-Fluorophenol	1.125	1.160	1.154	1.125	1.067	1.122	AVRG		1.12548593		2.911	20.000
Phenol-D6	1.433	1.485	1.400	1.337	1.296	1.245	AVRG		1.36602873		6.566	20.000
Nitrobenzene-D5	0.310	0.313	0.300	0.279	0.282	0.266	AVRG		0.29177254		6.443	20.000
2-Fluorobiphenyl	1.186	1.159	1.128	1.006	0.989	0.973	AVRG		1.07342704		8.831	20.000
2,4,6-Tribromophenol	0.157	0.171	0.174	0.157	0.150	0.165	AVRG		0.16248722		5.720	20.000
Terphenyl-D14	0.723	0.711	0.747	0.622	0.665	0.670	AVRG		0.68978864		6.624	20.000

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: UD600 DFTPP Injection Date: 06/29/11

Instrument ID: GCMS-U DFTPP Injection Time: 1420

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	41.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	51.3
197	Less than 1.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.4
365	1.0 - 100.0% of mass 198	3.3
441	0.0 - 100.0% of mass 443	13.5 (76.5)2
442	40.0 - 100.0% of mass 198	89.4
443	17.0 - 23.0% of mass 442	17.6 (19.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0629	U6270D	06/29/11	1440
02	WG93321-BLANK	WG93321-1	U6271D	06/29/11	1526
03	45-SB05-SB-06242011	SE3674-5	U6276	06/29/11	1911
04	45-SB06-SB-06242011	SE3674-6	U6277	06/29/11	1955
05	45-SB07-SB-06242011	SE3674-7	U6278	06/29/11	2040
06	45-SB08-SB-06242011	SE3674-8	U6279	06/29/11	2125
07	45-SB14-SB-06242011	SE3674-15	U6280	06/29/11	2210
08	45-SB13-SB-06242011	WG93321-4	U6281	06/29/11	2255
09	45-SB13-SB-06242011	WG93321-5	U6282	06/29/11	2340
10	45-SB09-SB-06242011	SE3674-9	U6283	06/30/11	0024
11	45-SB10-SB-06242011	SE3674-10	U6284	06/30/11	0109
12	45-SB11-SB-06242011	SE3674-11	U6285	06/30/11	0154
13					
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FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-U Calibration Date: 06/29/11 Time: 1440

Lab File ID: U6270D Init. Calib. Date(s): 06/27/11 06/27/11

Init. Calib. Times: 1042 1424

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Phenol	1.3090000	1.3565000	1.3565000	0.8	3.63	20.01	AVRG	
Bis(2-Chloroethyl)ether	1.0110000	1.0027000	1.0027000	0.7	-0.82	20.00	AVRG	
2-Chlorophenol	1.1020000	1.1258000	1.1258000	0.8	2.16	20.00	AVRG	
2,2'-Oxybis(1-chloropropane)	1.1960000	1.4664000	1.4664000	0.01	22.61	20.00	AVRG	<-
2-Methylphenol	1.0010000	0.9868600	0.9868600	0.7	-1.41	20.00	AVRG	
Hexachloroethane	0.5010000	0.5203800	0.5203800	0.3	3.87	20.00	AVRG	
N-Nitroso-di-n-propylamine	0.6090000	0.7023900	0.7023900	0.5	15.34	20.00	AVRG	
3&4-Methylphenol	1.0540000	1.0452000	1.0452000	0.6	-0.83	20.00	AVRG	
Nitrobenzene	0.2950000	0.2918700	0.2918700	0.2	-1.06	20.00	AVRG	
Isophorone	0.5170000	0.5132700	0.5132700	0.4	-0.72	20.00	AVRG	
2-Nitrophenol	0.1740000	0.1732800	0.1732800	0.1	-0.41	20.01	AVRG	
2,4-Dimethylphenol	0.2860000	0.2856300	0.2856300	0.2	-0.13	20.00	AVRG	
Bis(2-Chloroethoxy)methane	0.3840000	0.3517400	0.3517400	0.3	-8.40	20.00	AVRG	
2,4-Dichlorophenol	0.2460000	0.2531000	0.2531000	0.2	2.89	20.01	AVRG	
4-Chloroaniline	0.3120000	0.2818100	0.2818100	0.01	-9.68	20.00	AVRG	
Hexachlorobutadiene	0.1480000	0.1551700	0.1551700	0.01	4.84	20.01	AVRG	
4-Chloro-3-Methylphenol	0.2360000	0.2392400	0.2392400	0.2	1.37	20.01	AVRG	
2,4,6-Trichlorophenol	0.3190000	0.3037700	0.3037700	0.2	-4.77	20.01	AVRG	
2,4,5-Trichlorophenol	0.3340000	0.3129700	0.3129700	0.2	-6.30	20.00	AVRG	
2-Chloronaphthalene	1.3240000	1.3517000	1.3517000	0.8	2.09	20.00	AVRG	
2-Nitroaniline	0.2400000	0.2528200	0.2528200	0.01	5.34	20.00	AVRG	
Dimethyl Phthalate	0.9370000	0.9751100	0.9751100	0.01	4.07	20.00	AVRG	
2,6-Dinitrotoluene	0.2400000	0.2401900	0.2401900	0.2	0.08	20.00	AVRG	
3-Nitroaniline	0.2410000	0.2255700	0.2255700	0.01	-6.40	20.00	AVRG	
2,4-Dinitrophenol	48.360000	50.000000	0.1222300	0.05	-3.28	20.00	2RDR	
Dibenzofuran	1.2240000	1.2082000	1.2082000	0.8	-1.29	20.00	AVRG	
4-Nitrophenol	0.1690000	0.1603600	0.1603600	0.05	-5.11	20.00	AVRG	
2,4-Dinitrotoluene	0.8930000	0.9043300	0.9043300	0.2	1.27	20.00	AVRG	
Diethylphthalate	0.9530000	0.9571500	0.9571500	0.01	0.44	20.00	AVRG	

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-U Calibration Date: 06/29/11 Time: 1440

Lab File ID: U6270D Init. Calib. Date(s): 06/27/11 06/27/11

Init. Calib. Times: 1042 1424

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
4-Chlorophenyl-phenylether	0.4520000	0.4482500	0.4482500	0.4	-0.83	20.00	AVRG
4-Nitroaniline	0.2000000	0.1874800	0.1874800	0.01	-6.26	20.00	AVRG
4,6-Dinitro-2-Methylphenol	0.1160000	0.1235600	0.1235600	0.01	6.52	20.00	AVRG
N-Nitrosodiphenylamine	0.5440000	0.5749500	0.5749500	0.01	5.69	20.01	AVRG
4-Bromophenyl-phenylether	0.1700000	0.1890200	0.1890200	0.1	11.19	20.00	AVRG
Hexachlorobenzene	0.2180000	0.2169600	0.2169600	0.1	-0.48	20.00	AVRG
Pentachlorophenol	0.1180000	0.1346500	0.1346500	0.05	14.11	20.01	AVRG
Carbazole	0.7520000	0.7728600	0.7728600	0.01	2.77	20.00	AVRG
Di-n-butylphthalate	1.0700000	1.1064000	1.1064000	0.01	3.40	20.00	AVRG
Butylbenzylphthalate	0.5800000	0.5616700	0.5616700	0.01	-3.16	20.00	AVRG
3,3'-Dichlorobenzidine	0.2480000	0.2305100	0.2305100	0.01	-7.05	20.00	AVRG
bis(2-Ethylhexyl)phthalate	0.8070000	0.7636000	0.7636000	0.01	-5.38	20.00	AVRG
Di-n-octylphthalate	1.5300000	1.5083000	1.5083000	0.01	-1.42	20.01	AVRG
1,1'-Biphenyl	1.1270000	1.0654000	1.0654000	0.01	-5.46	20.00	AVRG
Caprolactam	8.e-002	7.96e-002	7.96e-002	0.01	-0.50	20.00	AVRG
Benzaldehyde	0.3020000	0.2556000	0.2556000	0.01	-15.36	20.00	AVRG
Acetophenone	0.3760000	0.3679400	0.3679400	0.01	-2.14	20.00	AVRG
Atrazine	53.602000	50.000000	0.1482000	0.01	7.20	20.00	2RDR
Hexachlorocyclopentadiene	0.3050000	0.3200800	0.3200800	0.05	4.94	20.00	AVRG
2-Fluorophenol	1.1260000	1.1401000	1.1401000	0.01	1.25	20.00	AVRG
Phenol-D6	1.3660000	1.3733000	1.3733000	0.01	0.53	20.00	AVRG
Nitrobenzene-D5	0.2920000	0.2900400	0.2900400	0.01	-0.67	20.00	AVRG
2-Fluorobiphenyl	1.0740000	1.0310000	1.0310000	0.01	-4.00	20.00	AVRG
2,4,6-Tribromophenol	0.1620000	0.1518000	0.1518000	0.01	-6.30	20.00	AVRG
Terphenyl-D14	0.6900000	0.7093300	0.7093300	0.01	2.80	20.00	AVRG

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: UD601 DFTPP Injection Date: 06/30/11

Instrument ID: GCMS-U DFTPP Injection Time: 0706

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	37.7
68	Less than 2.0% of mass 69	0.4 (0.9)1
69	Less than 100.0% of mass 198	41.9
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	40.0 - 60.0% of mass 198	52.0
197	Less than 1.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	25.1
365	1.0 - 100.0% of mass 198	3.7
441	0.0 - 100.0% of mass 443	13.8 (74.3)2
442	40.0 - 100.0% of mass 198	94.8
443	17.0 - 23.0% of mass 442	18.6 (19.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0630	U6287D	06/30/11	0726
02	45-SB12-SB-06242011	SE3674-12	U6290	06/30/11	0939
03	AX45-DUP01-06242011	SE3674-13	U6291	06/30/11	1023
04	45-SB13-SB-06242011	SE3674-14	U6292	06/30/11	1107
05	WG93321-LCS	WG93321-2	U6298D	06/30/11	1535
06	WG93321-LCSD	WG93321-3	U6299D	06/30/11	1619
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
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18					
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20					

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-U Calibration Date: 06/30/11 Time: 0726

Lab File ID: U6287D Init. Calib. Date(s): 06/27/11 06/27/11

Init. Calib. Times: 1042 1424

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Phenol	1.3090000	1.4114000	1.4114000	0.8	7.82	20.01	AVRG	
Bis(2-Chloroethyl)ether	1.0110000	1.0415000	1.0415000	0.7	3.02	20.00	AVRG	
2-Chlorophenol	1.1020000	1.1582000	1.1582000	0.8	5.10	20.00	AVRG	
2,2'-Oxybis(1-chloropropane)	1.1960000	1.4962000	1.4962000	0.01	25.10	20.00	AVRG	<-
2-Methylphenol	1.0010000	1.0334000	1.0334000	0.7	3.24	20.00	AVRG	
Hexachloroethane	0.5010000	0.5515600	0.5515600	0.3	10.09	20.00	AVRG	
N-Nitroso-di-n-propylamine	0.6090000	0.7372000	0.7372000	0.5	21.05	20.00	AVRG	<-
3&4-Methylphenol	1.0540000	1.0998000	1.0998000	0.6	4.34	20.00	AVRG	
Nitrobenzene	0.2950000	0.3075100	0.3075100	0.2	4.24	20.00	AVRG	
Isophorone	0.5170000	0.5285900	0.5285900	0.4	2.24	20.00	AVRG	
2-Nitrophenol	0.1740000	0.1750100	0.1750100	0.1	0.58	20.01	AVRG	
2,4-Dimethylphenol	0.2860000	0.2936900	0.2936900	0.2	2.69	20.00	AVRG	
Bis(2-Chloroethoxy)methane	0.3840000	0.3665800	0.3665800	0.3	-4.54	20.00	AVRG	
2,4-Dichlorophenol	0.2460000	0.2582900	0.2582900	0.2	5.00	20.01	AVRG	
4-Chloroaniline	0.3120000	0.2964200	0.2964200	0.01	-4.99	20.00	AVRG	
Hexachlorobutadiene	0.1480000	0.1590800	0.1590800	0.01	7.49	20.01	AVRG	
4-Chloro-3-Methylphenol	0.2360000	0.2497600	0.2497600	0.2	5.83	20.01	AVRG	
2,4,6-Trichlorophenol	0.3190000	0.3096600	0.3096600	0.2	-2.93	20.01	AVRG	
2,4,5-Trichlorophenol	0.3340000	0.3285300	0.3285300	0.2	-1.64	20.00	AVRG	
2-Chloronaphthalene	1.3240000	1.3622000	1.3622000	0.8	2.88	20.00	AVRG	
2-Nitroaniline	0.2400000	0.2709100	0.2709100	0.01	12.88	20.00	AVRG	
Dimethyl Phthalate	0.9370000	0.9769900	0.9769900	0.01	4.27	20.00	AVRG	
2,6-Dinitrotoluene	0.2400000	0.2427200	0.2427200	0.2	1.13	20.00	AVRG	
3-Nitroaniline	0.2410000	0.2318900	0.2318900	0.01	-3.78	20.00	AVRG	
2,4-Dinitrophenol	50.508000	50.000000	0.1281700	0.05	1.02	20.00	2RDR	
Dibenzofuran	1.2240000	1.2197000	1.2197000	0.8	-0.35	20.00	AVRG	
4-Nitrophenol	0.1690000	0.1735600	0.1735600	0.05	2.70	20.00	AVRG	
2,4-Dinitrotoluene	0.8930000	0.9228700	0.9228700	0.2	3.34	20.00	AVRG	
Diethylphthalate	0.9530000	0.9697600	0.9697600	0.01	1.76	20.00	AVRG	

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GCMS-U Calibration Date: 06/30/11 Time: 0726

Lab File ID: U6287D Init. Calib. Date(s): 06/27/11 06/27/11

Init. Calib. Times: 1042 1424

GC Column: ZB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
4-Chlorophenyl-phenylether	0.4520000	0.4453400	0.4453400	0.4	-1.47	20.00	AVRG	
4-Nitroaniline	0.2000000	0.1980400	0.1980400	0.01	-0.98	20.00	AVRG	
4,6-Dinitro-2-Methylphenol	0.1160000	0.1238200	0.1238200	0.01	6.74	20.00	AVRG	
N-Nitrosodiphenylamine	0.5440000	0.5550500	0.5550500	0.01	2.03	20.01	AVRG	
4-Bromophenyl-phenylether	0.1700000	0.1803100	0.1803100	0.1	6.06	20.00	AVRG	
Hexachlorobenzene	0.2180000	0.2113400	0.2113400	0.1	-3.06	20.00	AVRG	
Pentachlorophenol	0.1180000	0.1307100	0.1307100	0.05	10.77	20.01	AVRG	
Carbazole	0.7520000	0.7938200	0.7938200	0.01	5.56	20.00	AVRG	
Di-n-butylphthalate	1.0700000	1.1029000	1.1029000	0.01	3.07	20.00	AVRG	
Butylbenzylphthalate	0.5800000	0.5254200	0.5254200	0.01	-9.41	20.00	AVRG	
3,3'-Dichlorobenzidine	0.2480000	0.2443000	0.2443000	0.01	-1.49	20.00	AVRG	
bis(2-Ethylhexyl)phthalate	0.8070000	0.7230500	0.7230500	0.01	-10.40	20.00	AVRG	
Di-n-octylphthalate	1.5300000	1.3956000	1.3956000	0.01	-8.78	20.01	AVRG	
1,1'-Biphenyl	1.1270000	1.0572000	1.0572000	0.01	-6.19	20.00	AVRG	
Caprolactam	8.e-002	8.46e-002	8.46e-002	0.01	5.75	20.00	AVRG	
Benzaldehyde	0.3020000	0.2341000	0.2341000	0.01	-22.48	20.00	AVRG	<-
Acetophenone	0.3760000	0.3791000	0.3791000	0.01	0.82	20.00	AVRG	
Atrazine	49.301000	50.000000	0.1407400	0.01	-1.40	20.00	2RDR	
Hexachlorocyclopentadiene	0.3050000	0.3113500	0.3113500	0.05	2.08	20.00	AVRG	
2-Fluorophenol	1.1260000	1.1840000	1.1840000	0.01	5.15	20.00	AVRG	
Phenol-D6	1.3660000	1.4434000	1.4434000	0.01	5.67	20.00	AVRG	
Nitrobenzene-D5	0.2920000	0.2971700	0.2971700	0.01	1.77	20.00	AVRG	
2-Fluorobiphenyl	1.0740000	1.0317000	1.0317000	0.01	-3.94	20.00	AVRG	
2,4,6-Tribromophenol	0.1620000	0.1611600	0.1611600	0.01	-0.52	20.00	AVRG	
Terphenyl-D14	0.6900000	0.6375800	0.6375800	0.01	-7.60	20.00	AVRG	

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93321-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: U6271D Lab Sample ID: WG93321-1

Instrument ID: GCMS-U Date Extracted: 06/27/11

Matrix: (soil/water) SOIL Date Analyzed: 06/29/11

Level:(low/med) LOW Time Analyzed: 1526

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	45-SB05-SB-06242011	SE3674-5	U6276	06/29/11	1911
02	45-SB06-SB-06242011	SE3674-6	U6277	06/29/11	1955
03	45-SB07-SB-06242011	SE3674-7	U6278	06/29/11	2040
04	45-SB08-SB-06242011	SE3674-8	U6279	06/29/11	2125
05	45-SB14-SB-06242011	SE3674-15	U6280	06/29/11	2210
06	45-SB13-SB-06242011	WG93321-4	U6281	06/29/11	2255
07	45-SB13-SB-06242011	WG93321-5	U6282	06/29/11	2340
08	45-SB09-SB-06242011	SE3674-9	U6283	06/30/11	0024
09	45-SB10-SB-06242011	SE3674-10	U6284	06/30/11	0109
10	45-SB11-SB-06242011	SE3674-11	U6285	06/30/11	0154
11	45-SB12-SB-06242011	SE3674-12	U6290	06/30/11	0939
12	AX45-DUP01-06242011	SE3674-13	U6291	06/30/11	1023
13	45-SB13-SB-06242011	SE3674-14	U6292	06/30/11	1107
14	WG93321-LCS	WG93321-2	U6298D	06/30/11	1535
15	WG93321-LCSD	WG93321-3	U6299D	06/30/11	1619
16					
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29					
30					

COMMENTS:

FORM IVSV

Report of Analytical Results

Client:
Lab ID: WG93321-1
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date: 27-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: NA
Report Date: 01-jul-2011 09:44

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Phenol	U	160	ug/Kgdrywt	1	330	330	160	250
Bis(2-Chloroethyl) Ether	U	81.	ug/Kgdrywt	1	330	330	81.	250
2-Chlorophenol	U	160	ug/Kgdrywt	1	330	330	160	250
2-Methylphenol	U	200	ug/Kgdrywt	1	330	330	200	250
2,2'-Oxybis(1-Chloropropane)	U	89.	ug/Kgdrywt	1	330	330	89.	250
3&4-Methylphenol	U	190	ug/Kgdrywt	1	330	330	190	250
N-Nitroso-Di-N-Propylamine	U	83.	ug/Kgdrywt	1	330	330	83.	250
Hexachloroethane	U	96.	ug/Kgdrywt	1	330	330	96.	250
Nitrobenzene	U	91.	ug/Kgdrywt	1	330	330	91.	250
Isophorone	U	75.	ug/Kgdrywt	1	330	330	75.	250
2-Nitrophenol	U	170	ug/Kgdrywt	1	330	330	170	250
2,4-Dimethylphenol	U	160	ug/Kgdrywt	1	330	330	160	250
Bis(2-Chloroethoxy) Methane	U	96.	ug/Kgdrywt	1	330	330	96.	250
2,4-Dichlorophenol	U	150	ug/Kgdrywt	1	330	330	150	250
4-Chloroaniline	U	120	ug/Kgdrywt	1	330	330	120	250
Hexachlorobutadiene	U	83.	ug/Kgdrywt	1	330	330	83.	250
4-Chloro-3-Methylphenol	U	170	ug/Kgdrywt	1	330	330	170	250
2,4,6-Trichlorophenol	U	160	ug/Kgdrywt	1	330	330	160	250
2,4,5-Trichlorophenol	U	160	ug/Kgdrywt	1	820	820	160	620
2-Chloronaphthalene	U	87.	ug/Kgdrywt	1	330	330	87.	250
2-Nitroaniline	U	75.	ug/Kgdrywt	1	820	820	75.	620
Dimethyl Phthalate	U	78.	ug/Kgdrywt	1	330	330	78.	250
2,6-Dinitrotoluene	U	79.	ug/Kgdrywt	1	330	330	79.	250
3-Nitroaniline	U	94.	ug/Kgdrywt	1	820	820	94.	620
2,4-Dinitrophenol	U	380	ug/Kgdrywt	1	820	820	380	620
4-Nitrophenol	U	310	ug/Kgdrywt	1	820	820	310	620
Dibenzofuran	U	79.	ug/Kgdrywt	1	330	330	79.	250
2,4-Dinitrotoluene	U	85.	ug/Kgdrywt	1	330	330	85.	250
Diethylphthalate	U	80.	ug/Kgdrywt	1	330	330	80.	250
4-Chlorophenyl-Phenylether	U	78.	ug/Kgdrywt	1	330	330	78.	250
4-Nitroaniline	U	130	ug/Kgdrywt	1	820	820	130	620
4,6-Dinitro-2-Methylphenol	U	340	ug/Kgdrywt	1	820	820	340	620
N-Nitrosodiphenylamine	U	220	ug/Kgdrywt	1	330	330	220	250
4-Bromophenyl-Phenylether	U	85.	ug/Kgdrywt	1	330	330	85.	250

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

Report of Analytical Results

Client:
Lab ID: WG93321-1
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date: 27-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93321

Analysis Date: 29-JUN-11
Analyst: WAS
Analysis Method: SW846 8270D
Matrix: SL
% Solids: NA
Report Date: 01-jul-2011 09:44

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Hexachlorobenzene	U	82.	ug/Kgdrywt	1	330	330	82.	250
Pentachlorophenol	U	240	ug/Kgdrywt	1	820	820	240	620
Carbazole	U	110	ug/Kgdrywt	1	330	330	110	250
Di-N-Butylphthalate	U	100	ug/Kgdrywt	1	330	330	100	250
Butylbenzylphthalate	U	93.	ug/Kgdrywt	1	330	330	93.	250
3,3'-Dichlorobenzidine	U	110	ug/Kgdrywt	1	330	330	110	250
Bis(2-Ethylhexyl)Phthalate	U	98.	ug/Kgdrywt	1	330	330	98.	250
Di-N-Octylphthalate	U	210	ug/Kgdrywt	1	330	330	210	250
1,1'-biphenyl	U	73.	ug/Kgdrywt	1	330	330	73.	250
Hexachlorocyclopentadiene	U	82.	ug/Kgdrywt	1	330	330	82.	250
Caprolactam	U	140	ug/Kgdrywt	1	330	330	140	250
Benzaldehyde	U	120	ug/Kgdrywt	1	330	330	120	250
Atrazine	U	91.	ug/Kgdrywt	1	330	330	91.	250
Acetophenone	U	180	ug/Kgdrywt	1	330	330	180	250
2-Fluorophenol		42.6	%					
Phenol-D6		42.6	%					
Nitrobenzene-d5		45.1	%					
2-Fluorobiphenyl		46.6	%					
2,4,6-Tribromophenol		36.7	%					
Terphenyl-d14		52.2	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 06/21/11 06/22/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 12.91 TCX: 3.51

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01		AR1660 1.0	06/21/11	1417	12.91	3.51
02		AR1660 0.05	06/21/11	1443	12.90	3.50
03		AR1660 0.1	06/21/11	1509	12.90	3.50
04		AR1660 0.25	06/21/11	1536	12.90	3.51
05		AR1660 2.5	06/21/11	1602	12.90	3.51
06		AR1660 10	06/21/11	1628	12.89	3.50
07		AR1016 1.0	06/21/11	1654		
08		AR1260 1.0	06/21/11	1720		
09		AR1242 1.0	06/21/11	1746		
10		AR1248 1.0	06/21/11	2020		
11		AR1254 1.0	06/21/11	2256		
12		AR1221 1.0	06/22/11	0130		
13		AR1232 1.0	06/22/11	0403		
14		AR1660 0.25	06/28/11	1756	12.88	3.50
15	WG93367-BLAN	WG93367-1	06/28/11	2031	12.87	3.49
16	WG93367-LCS	WG93367-2	06/28/11	2057	12.87	3.49
17	WG93367-LCSD	WG93367-3	06/28/11	2123	12.87	3.50
18	45-SB13-SB-0	WG93367-4	06/28/11	2149	12.87	3.50
19	45-SB13-SB-0	WG93367-5	06/28/11	2215	12.87	3.49
20	45-SB05-SB-0	SE3674-5	06/28/11	2240	12.87	3.50

* AR-1260 →

QC LIMITS
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 06/21/11 06/22/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
DCB: 12.91 TCX: 3.51

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DCB RT #	TCX RT #
01	45-SB06-SB-0	SE3674-6	06/28/11	2306	12.87	3.50
02	45-SB07-SB-0	SE3674-7	06/28/11	2332	12.87	3.50
03		AR1660 1.0	06/29/11	0023	12.87	3.50
04		AR1660 0.25	06/29/11	1958	12.88	3.49
05	45-SB08-SB-0	SE3674-8	06/30/11	0015	12.87	3.50
06	45-SB09-SB-0	SE3674-9	06/30/11	0041	12.87	3.50
07	45-SB10-SB-0	SE3674-10	06/30/11	0106	12.87	3.50
08	45-SB11-SB-0	SE3674-11	06/30/11	0132	12.88	3.50
09		AR1660 1.0	06/30/11	0223	12.88	3.50
10		AR1660 1.0	06/30/11	1153	12.89	3.50
11	45-SB12-SB-0	SE3674-12	06/30/11	1631	12.87	3.50
12	AX45-DUP01-0	SE3674-13	06/30/11	1657	12.87	3.50
13	45-SB13-SB-0	SE3674-14	06/30/11	1723	12.88	3.50
14	45-SB14-SB-0	SE3674-15	06/30/11	1749	12.88	3.50
15		AR1660 0.25	06/30/11	1840	12.88	3.51
16						
17						
18						
19						
20						

QC LIMITS
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date(s): 06/21/11 06/22/11

Column: RTX-CLPESTICIDES ID: 0.53 (mm) Calibration Time(s): 1417 1123

LAB FILE ID: ~~RF0.05: 7EF341~~ RF0.1: 7EF342 RF0.25: 7EF343
RF1: 7EF340 RF2.5: 7EF344 RF10: 7EF345

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
Aroclor-1016	3e+007	3.e+007	3e+007	3.e+007	3e+007	3.e+007	AVRG		28795430.0	4.716	20.000
(2)	1e+007	1e+007	1e+007	1e+007	1e+007	2e+007	AVRG		14745580.0	1.891	20.000
(3)	4e+007	4e+007	4e+007	5.e+007	5e+007	5e+007	AVRG		46183484.4	12.381	20.000
(4)	2e+007	2e+007	3e+007	3e+007	3e+007	3.e+007	AVRG		26395762.9	10.372	20.000
(5)	2.e+007	2e+007	2e+007	2e+007	2e+007	3e+007	AVRG		23273429.4	10.226	20.000
Aroclor-1221	8991700	9096100	1.e+007	9149900	9231600	9324400	AVRG		9320524.18	4.423	20.000
(2)	2e+007	2e+007	3e+007	2e+007	2e+007	2e+007	AVRG		23092355.6	5.424	20.000
(3)	1634400	1523000	1961300	1652100	1649300	1598200	AVRG		1669743.97	9.028	20.000
(4)	2214400	2073900	2483800	2229800	2371700	2531100	AVRG		2317281.80	7.575	20.000
Aroclor-1232	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		18076208.5	3.106	20.000
(2)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG		12163857.8	2.999	20.000
(3)	2e+007	2e+007	2e+007	2e+007	2.e+007	2e+007	AVRG		18521650.1	8.239	20.000
(4)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG		11666161.5	10.160	20.000
(5)	8250900	8361000	8398400	8426100	8846800	9219800	AVRG		8583830.35	4.338	20.000
Aroclor-1242	3e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		23579263.3	5.353	20.000
(2)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG		12177771.9	6.343	20.000
(3)	4e+007	4e+007	3e+007	4e+007	4.e+007	4.e+007	AVRG		36995966.4	6.647	20.000
(4)	2.e+007	2e+007	2.e+007	2e+007	2e+007	2e+007	AVRG		20902325.9	5.406	20.000
(5)	2e+007	2e+007	2e+007	2e+007	2.e+007	2.e+007	AVRG		19111878.2	5.061	20.000
Aroclor-1248	2e+007	2e+007	2e+007	2.e+007	2.e+007	2e+007	AVRG		19377197.5	8.606	20.000
(2)	2e+007	2e+007	2e+007	3e+007	3e+007	3e+007	AVRG		24647753.1	5.516	20.000
(3)	3e+007	3e+007	3.e+007	3e+007	3e+007	3e+007	AVRG		30748564.6	8.057	20.000
(4)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG		19841789.9	10.762	20.000
(5)	1e+007	1e+007	1e+007	2e+007	2e+007	2e+007	AVRG		14457792.4	19.960	20.000
Aroclor-1254	3e+007	4e+007	3e+007	3e+007	3e+007	4e+007	AVRG		33870448.5	4.912	20.000
(2)	4.e+007	4e+007	4e+007	4e+007	5e+007	5e+007	AVRG		42892854.1	8.066	20.000
(3)	3e+007	3.e+007	3e+007	3e+007	3e+007	4e+007	AVRG		30752530.3	10.982	20.000
(4)	3e+007	3e+007	3e+007	3e+007	3e+007	3e+007	AVRG		30944626.2	8.060	20.000
(5)	3e+007	3e+007	3.e+007	4e+007	4e+007	4e+007	AVRG		35418651.6	16.639	20.000
Aroclor-1260	1789700	3741400	9975200	4e+007	1e+008	5e+008	LINR	4.73e-002	2.097e-008	0.99981	0.99000
(2)	2215800	4682500	1e+007	6e+007	2e+008	6e+008	LINR	4.188e-002	1.564e-008	0.99990	0.99000
(3)	1519700	3156900	9519000	5e+007	1e+008	5e+008	LINR	9.041e-002	1.861e-008	0.99915	0.99000
(4)	2456500	5032200	2e+007	8.e+007	2e+008	6e+008	LINR	-0.1150574	1.541e-008	0.99445	0.99000
(5)	985210	2172200	6142100	3.e+007	8e+007	4e+008	LINR	0.12224104	2.676e-008	0.99802	0.99000
Tetrachloro-m-xylene	1e+009	1e+009	1e+009	1e+009	1e+009	1e+009	AVRG		1098014046	7.987	20.000
Decachlorobiphenyl	5e+008	5e+008	5e+008	5e+008	5e+008	6e+008	AVRG		516143273	9.717	20.000

FORM VI PCB

Report Date : 28-Jun-2011 16:45

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 21-JUN-2011 14:17
End Cal Date : 22-JUN-2011 11:23
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m
Cal Date : 23-Jun-2011 09:14 jprescott

Calibration File Names:
Level 1: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\7EF341.D
Level 2: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\7EF342.D
Level 3: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\7EF343.D
Level 4: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\7EF340.D
Level 5: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\7EF344.D
Level 6: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\7EF345.D

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2500000 Level 3	1.0000 Level 4	2.5000 Level 5	10.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000
2 Aroclor-1221 (1)	8991660	9096130	10129316	9149946	9231659	9324434	AVRG		9320524		4.42279
(2)	22639700	22442920	25467392	22881428	23256741	21865952	AVRG		23092356		5.42362
(3)	1634440	1523030	1961284	1652145	1649344	1598221	AVRG		1669744		9.02756
(4)	2214420	2073930	2483784	2228755	2371662	2531140	AVRG		2317282		7.57480
4 Aroclor-1232 (1)	18035000	18715480	17979708	18199994	18451176	17075893	AVRG		18076209		3.10612
(2)	12234220	12708830	12376276	11756510	12132729	11774582	AVRG		12163858		2.99929
(3)	16974600	17352450	17768628	18270071	19975812	20788340	AVRG		18521650		8.23894
(4)	13937240	11622710	11036408	10551349	11191942	11657320	AVRG		11666162		10.15969
(5)	8250920	8360980	8398408	8426120	8846790	9219764	AVRG		8583830		4.33806
5 Aroclor-1242 (1)	25628020	24424960	23164624	22852182	23341406	22064387	AVRG		23579263		5.35263
(2)	13423260	12810920	11863420	11616622	11915424	11436986	AVRG		12177772		6.34313
(3)	35105200	35240490	34516748	37239832	40134817	39738711	AVRG		36995966		6.64714
(4)	19765580	20773470	19731940	20649384	22129116	22364466	AVRG		20902326		5.40650

Report Date : 28-Jun-2011 16:45

Katahdin Analytical Services

INITIAL CALIBRATION DATA

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Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m
Cal Date : 23-Jun-2011 09:14 jprescott

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2500000 Level 3	1.0000 Level 4	2.5000 Level 5	10.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
(5)	17810440	19475240	18303008	18830284	19950532	20301766	AVRG		19111878		5.06134
6 Aroclor-1016 (1)	26197800	29710450	28469068	29539215	29130769	29725278	AVRG		28795430		4.71626
(2)	14505220	14382020	14827820	14740600	14845804	15172017	AVRG		14745580		1.89069
(3)	37935580	41784370	44312964	50276225	50525715	52266053	AVRG		46183484		12.38122
(4)	23111720	23745340	25582668	27624444	28091184	30219222	AVRG		26395763		10.37157
(5)	20283540	21555250	22282496	23966307	24672993	26879991	AVRG		23273429		10.22583
7 Aroclor-1248 (1)	17403480	18215180	18373560	20028888	20364090	21877987	AVRG		19377198		8.60639
(2)	22635560	23787740	24077264	25666519	25582176	26137259	AVRG		24647753		5.51645
(3)	27273860	28853820	29701180	32921570	32551753	33189205	AVRG		30748565		8.05739
(4)	16944020	18366510	18731792	21160382	21384751	22463285	AVRG		19841790		10.76157
(5)	11051740	12230420	12728260	15887697	16320002	18528635	AVRG		14457792		19.95985
8 Aroclor-1254 (1)	34439040	35001780	31173112	32837297	33928353	35843109	AVRG		33870448		4.91222
(2)	39722600	42073570	38719940	43289583	45940230	47611202	AVRG		42892854		8.06551
(3)	27343160	29881240	27300428	31020885	32934855	36034614	AVRG		30752530		10.98259
(4)	27969460	31603680	28339812	30915820	32240269	34598717	AVRG		30944626		8.05991
(5)	29497460	32881380	29962492	36099506	39355516	44715555	AVRG		35418652		16.63935
9 Aroclor-1260 (1)	1789741	3741435	9975178	42974953	112743339	475734127	LINR	0.04730	47679508		0.99981
(2)	2215817	4682523	13153625	58786827	153237799	637676096	LINR	0.04188	63920278		0.99990
(3)	1519713	3156874	9518954	45391315	118015140	535137444	LINR	0.09041	53722108		0.99915
(4)	2456541	5032237	16250870	79753529	206917638	643608533	LINR	-0.11506	64875435		0.99445
(5)	985209	2172178	6142107	30054803	76209354	371870177	LINR	0.12224	37367536		0.99802
10 Aroclor-1262 (1)	32370260	29259690	33466064	30871237	35647354	34870366	AVRG		32747495		7.38704

Report Date : 28-Jun-2011 16:45

Katahdin Analytical Services

INITIAL CALIBRATION DATA

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Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m
Cal Date : 23-Jun-2011 09:14 jprescott

Compound	0.0500000 Level 1	0.1000000 Level 2	0.2500000 Level 3	1.0000 Level 4	2.5000 Level 5	10.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
(2)	36163440	33465730	39564488	37304140	45915561	44647943	AVRG		39510217		12.40088
(3)	55988160	50641200	59442216	57262476	67324684	64355350	AVRG		59169014		10.13943
(4)	42170540	36688410	43155396	41107872	48441805	46348960	AVRG		42985497		9.58937
(5)	37237160	34525980	39984552	38646576	43846705	40884091	AVRG		39187511		8.15374
11 Aroclor-1268 (1)	21777280	22009370	22312584	24581230	25798354	+++++	AVRG		23295764		7.69166
(2)	32919780	31933360	31935704	33686769	35013640	+++++	AVRG		33097851		3.92641
(3)	19674980	18439420	18942196	20159361	20804439	+++++	AVRG		19604079		4.80464
(4)	21981280	21689870	21841560	25942556	27758284	+++++	AVRG		23842710		11.83415
(5)	31862060	31495760	31617300	33893587	35747744	+++++	AVRG		32923290		5.63934
3 Tetrachloro-m-xylene	976837000	1.055e+009	1.063e+009	1.117e+009	1.143e+009	1.233e+009	AVRG		1.098e+009		7.98723
12 Decachlorobiphenyl	470114000	469119500	520677200	509862000	520575180	606511755	AVRG		516143273		9.71665

Report Date : 28-Jun-2011 16:45

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 21-JUN-2011 14:17
End Cal Date : 22-JUN-2011 11:23
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : Falcon
Method file : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m
Cal Date : 23-Jun-2011 09:14 jprescott

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Report Date: 28-Jun-2011 16:45

Calibration History

Method : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m
Start Cal Date: 21-JUN-2011 14:17
End Cal Date : 22-JUN-2011 11:23
Last Cal Level: 6
Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
22-JUN-2011 09:39	AR1268	7EF341.D
22-JUN-2011 07:03	AR1262	7EF335.D
22-JUN-2011 04:29	AR1232	7EF329.D
22-JUN-2011 01:55	AR1221	7EF323.D
21-JUN-2011 23:21	AR1254	7EF317.D
21-JUN-2011 20:46	AR1248	7EF311.D
21-JUN-2011 18:12	AR1242	7EF305.D
21-JUN-2011 14:43	AR1660	7EF297.D
Cal Level: 2 , Cal Amount: 0.10000		
22-JUN-2011 10:05	AR1268	7EF342.D
22-JUN-2011 07:29	AR1262	7EF336.D
22-JUN-2011 04:55	AR1232	7EF330.D
22-JUN-2011 02:21	AR1221	7EF324.D
21-JUN-2011 23:47	AR1254	7EF318.D
21-JUN-2011 21:12	AR1248	7EF312.D
21-JUN-2011 18:37	AR1242	7EF306.D
21-JUN-2011 15:09	AR1660	7EF298.D
Cal Level: 3 , Cal Amount: 0.25000		
22-JUN-2011 10:31	AR1268	7EF343.D
22-JUN-2011 07:55	AR1262	7EF337.D
22-JUN-2011 05:20	AR1232	7EF331.D
22-JUN-2011 02:46	AR1221	7EF325.D
22-JUN-2011 00:13	AR1254	7EF319.D
21-JUN-2011 21:38	AR1248	7EF313.D
21-JUN-2011 19:03	AR1242	7EF307.D
21-JUN-2011 15:36	AR1660	7EF299.D
Cal Level: 4 , Cal Amount: 1.00000		
22-JUN-2011 09:13	AR1268	7EF340.D
22-JUN-2011 06:37	AR1262	7EF334.D
22-JUN-2011 04:03	AR1232	7EF328.D
22-JUN-2011 01:30	AR1221	7EF322.D
21-JUN-2011 22:56	AR1254	7EF316.D
21-JUN-2011 20:20	AR1248	7EF310.D
21-JUN-2011 17:46	AR1242	7EF304.D
21-JUN-2011 14:17	AR1660	7EF296.D

Cal Level: 5 , Cal Amount: 2.50000		
22-JUN-2011 10:57	AR1268	7EF344.D
22-JUN-2011 08:21	AR1262	7EF338.D
22-JUN-2011 05:46	AR1232	7EF332.D
22-JUN-2011 03:12	AR1221	7EF326.D
22-JUN-2011 00:38	AR1254	7EF320.D
21-JUN-2011 22:04	AR1248	7EF314.D
21-JUN-2011 19:28	AR1242	7EF308.D
21-JUN-2011 16:02	AR1660	7EF300.D

Cal Level: 6 , Cal Amount: 10.00000		
22-JUN-2011 11:23	AR1268	7EF345.D
22-JUN-2011 08:47	AR1262	7EF339.D
22-JUN-2011 06:11	AR1232	7EF333.D
22-JUN-2011 03:38	AR1221	7EF327.D
22-JUN-2011 01:04	AR1254	7EF321.D
21-JUN-2011 22:30	AR1248	7EF315.D
21-JUN-2011 19:55	AR1242	7EF309.D
21-JUN-2011 16:28	AR1660	7EF301.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

21-JUN-2011 14:17	AR1660	7EF296.D
22-JUN-2011 09:13	AR1268	7EF340.D
21-JUN-2011 17:20	AR1260	7EF303.D
21-JUN-2011 16:54	AR1016	7EF302.D
22-JUN-2011 06:37	AR1262	7EF334.D
22-JUN-2011 04:03	AR1232	7EF328.D
22-JUN-2011 01:30	AR1221	7EF322.D
21-JUN-2011 22:56	AR1254	7EF316.D
21-JUN-2011 20:20	AR1248	7EF310.D
21-JUN-2011 17:46	AR1242	7EF304.D

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/21/11 Time: 1654

Lab File ID: 7EF302 Init. Calib. Date(s): 06/21/11 06/22/11

Init. Calib. Times: 1417 1123

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	28795000	30165000	0.001	4.76	20.00	AVRG
(2)	14746000	15244000	0.001	3.38	20.00	AVRG
(3)	46184000	49932000	0.001	8.12	20.00	AVRG
(4)	26396000	27328000	0.001	3.53	20.00	AVRG
(5)	23273000	23654000	0.001	1.64	20.00	AVRG
Average %D: 4.3000						

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/21/11 Time: 1720

Lab File ID: 7EF303 Init. Calib. Date(s): 06/21/11 06/22/11

Init. Calib. Times: 1417 1123

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Aroclor-1260	0.8839100	1.0000000	39889000	0.001	-11.61	20.00	LINR	
(2)	0.9153500	1.0000000	55832000	0.001	-8.46	20.00	LINR	
(3)	0.9052400	1.0000000	43774000	0.001	-9.48	20.00	LINR	
(4)	0.8338200	1.0000000	61559000	0.001	-16.62	20.00	LINR	
(5)	0.7839000	1.0000000	24724000	0.001	-21.61	20.00	LINR	<-

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/28/11 Time: 1756

Lab File ID: 7EF507 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Aroclor-1016	28795000	29857000	29857000	0.001	3.69	20.00	AVRG	
(2)	14746000	16794000	16794000	0.001	13.89	20.00	AVRG	
(3)	46184000	50826000	50826000	0.001	10.05	20.00	AVRG	
(4)	26396000	29480000	29480000	0.001	11.68	20.00	AVRG	
(5)	23273000	26513000	26513000	0.001	13.92	20.00	AVRG	
Average %D: 10.640								
Aroclor-1260	0.2871100	0.2500000	45737000	0.001	14.84	20.00	LINR	
(2)	0.2836200	0.2500000	61808000	0.001	13.45	20.00	LINR	
(3)	0.3108000	0.2500000	47361000	0.001	24.32	20.00	LINR	<-
(4)	0.2004400	0.2500000	81874000	0.001	-19.82	20.00	LINR	
(5)	0.3422700	0.2500000	32888000	0.001	36.91	20.00	LINR	<-
Decachlorobiphenyl	516140000	588000000	588000000	0.001	13.92	20.00	AVRG	
Tetrachloro-m-xylene	1.1e+009	998790000	998790000	0.001	-9.20	20.00	AVRG	

AVG. 21.9 %

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/29/11 Time: 0023

Lab File ID: 7EF522 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Aroclor-1016	28795000	37434000	37434000	0.001	30.00	20.00	AVRG	<-
(2)	14746000	18436000	18436000	0.001	25.02	20.00	AVRG	<-
(3)	46184000	67717000	67717000	0.001	46.62	20.00	AVRG	<-
(4)	26396000	35503000	35503000	0.001	34.50	20.00	AVRG	<-
(5)	23273000	31140000	31140000	0.001	33.80	20.00	AVRG	<-
Average %D: 33.990								
Aroclor-1260	1.2406000	1.0000000	56896000	0.001	24.06	20.00	LINR	<-
(2)	1.2866000	1.0000000	79560000	0.001	28.66	20.00	LINR	<-
(3)	1.2684000	1.0000000	63284000	0.001	26.84	20.00	LINR	<-
(4)	1.6049000	1.0000000	111590000	0.001	60.49	20.00	LINR	<-
(5)	1.3193000	1.0000000	44733000	0.001	31.93	20.00	LINR	<-
Decachlorobiphenyl	516140000	681110000	681110000	0.001	31.96	20.00	AVRG	<-
Tetrachloro-m-xylene	1.1e+009	1.27e+009	1.27e+009	0.001	15.45	20.00	AVRG	

AVG >20%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/29/11 Time: 1958

Lab File ID: 7EF542 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Aroclor-1016	28795000	28082000	28082000	0.001	-2.48	20.00	AVRG	
(2)	14746000	15376000	15376000	0.001	4.27	20.00	AVRG	
(3)	46184000	49324000	49324000	0.001	6.80	20.00	AVRG	
(4)	26396000	26137000	26137000	0.001	-0.98	20.00	AVRG	
(5)	23273000	22439000	22439000	0.001	-3.58	20.00	AVRG	
Average %D: 0.8000								
Aroclor-1260	0.2584500	0.2500000	40270000	0.001	3.38	20.00	LINR	
(2)	0.2569000	0.2500000	54976000	0.001	2.76	20.00	LINR	
(3)	0.2897200	0.2500000	42831000	0.001	15.89	20.00	LINR	
(4)	0.1710200	0.2500000	74236000	0.001	-31.59	20.00	LINR	<-
(5)	0.3242100	0.2500000	30189000	0.001	29.68	20.00	LINR	<-
Decachlorobiphenyl	516140000	485340000	485340000	0.001	-5.97	20.00	AVRG	
Tetrachloro-m-xylene	1.1e+009	849350000	849350000	0.001	-22.79	20.00	AVRG	<-

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/30/11 Time: 0223

Lab File ID: 7EF557 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Aroclor-1016	28795000	31617000	31617000	0.001	9.80	20.00	AVRG	
(2)	14746000	16021000	16021000	0.001	8.65	20.00	AVRG	
(3)	46184000	57067000	57067000	0.001	23.56	20.00	AVRG	<-
(4)	26396000	30117000	30117000	0.001	14.10	20.00	AVRG	
(5)	23273000	26542000	26542000	0.001	14.05	20.00	AVRG	
Average %D: 14.030								
Aroclor-1260	1.0220000	1.0000000	46475000	0.001	2.20	20.00	LINR	
(2)	1.0533000	1.0000000	64651000	0.001	5.33	20.00	LINR	
(3)	1.0583000	1.0000000	51996000	0.001	5.83	20.00	LINR	
(4)	1.3049000	1.0000000	92119000	0.001	30.49	20.00	LINR	<-
(5)	1.1099000	1.0000000	36907000	0.001	10.99	20.00	LINR	
Decachlorobiphenyl	516140000	562440000	562440000	0.001	8.97	20.00	AVRG	
Tetrachloro-m-xylene	1.1e+009	1.04e+009	1.04e+009	0.001	-5.45	20.00	AVRG	

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/30/11 Time: 1153

Lab File ID: 7EF562 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Aroclor-1016	28795000	22632000	22632000	0.001	-21.40	20.00	AVRG	<-
(2)	14746000	11098000	11098000	0.001	-24.74	20.00	AVRG	<-
(3)	46184000	38394000	38394000	0.001	-16.87	20.00	AVRG	
(4)	26396000	21330000	21330000	0.001	-19.19	20.00	AVRG	
(5)	23273000	17933000	17933000	0.001	-22.94	20.00	AVRG	<-
Average %D: -21.03								
Aroclor-1260	0.7502700	1.0000000	33517000	0.001	-24.97	20.00	LINR	<-
(2)	0.7795200	1.0000000	47150000	0.001	-22.05	20.00	LINR	<-
(3)	0.8113200	1.0000000	38729000	0.001	-18.87	20.00	LINR	
(4)	1.0315000	1.0000000	74383000	0.001	3.15	20.00	LINR	
(5)	0.9135600	1.0000000	29570000	0.001	-8.64	20.00	LINR	
Decachlorobiphenyl	516140000	469000000	469000000	0.001	-9.13	20.00	AVRG	
Tetrachloro-m-xylene	1.1e+009	848350000	848350000	0.001	-22.88	20.00	AVRG	<-

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/30/11 Time: 1840

Lab File ID: 7EF576 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Aroclor-1016	28795000	28552000	28552000	0.001	-0.84	20.00	AVRG	
(2)	14746000	15064000	15064000	0.001	2.16	20.00	AVRG	
(3)	46184000	47742000	47742000	0.001	3.37	20.00	AVRG	
(4)	26396000	27012000	27012000	0.001	2.33	20.00	AVRG	
(5)	23273000	22657000	22657000	0.001	-2.65	20.00	AVRG	
Average %D: 0.8800								
Aroclor-1260	0.2501700	0.2500000	38691000	0.001	0.07	20.00	LINR	
(2)	0.2481400	0.2500000	52736000	0.001	-0.74	20.00	LINR	
(3)	0.2856700	0.2500000	41961000	0.001	14.27	20.00	LINR	
(4)	0.1530000	0.2500000	69563000	0.001	-38.80	20.00	LINR	<-
(5)	0.3131000	0.2500000	28527000	0.001	25.24	20.00	LINR	<-
Decachlorobiphenyl	516140000	486280000	486280000	0.001	-5.78	20.00	AVRG	
Tetrachloro-m-xylene	1.1e+009	1.13e+009	1.13e+009	0.001	2.73	20.00	AVRG	

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 06/21/11 06/22/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.05 DCB: 16.80

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/21/11	1417	4.05	16.80
02		AR1660 0.05	06/21/11	1443	4.05	16.81
03		AR1660 0.1	06/21/11	1509	4.05	16.81
04		AR1660 0.25	06/21/11	1536	4.05	16.80
05		AR1660 2.5	06/21/11	1602	4.05	16.80
06		AR1660 10	06/21/11	1628	4.05	16.80
07		AR1016 1.0	06/21/11	1654		
08		AR1260 1.0	06/21/11	1720		
09		AR1242 1.0	06/21/11	1746		
10		AR1248 1.0	06/21/11	2020		
11		AR1254 1.0	06/21/11	2256		
12		AR1221 1.0	06/22/11	0130		
13		AR1232 1.0	06/22/11	0403		
14		AR1660 0.25	06/28/11	1756	4.04	16.77
15	WG93367-BLAN	WG93367-1	06/28/11	2031	4.03	16.76
16	WG93367-LCS	WG93367-2	06/28/11	2057	4.03	16.76
17	WG93367-LCSD	WG93367-3	06/28/11	2123	4.04	16.76
18	45-SB13-SB-0	WG93367-4	06/28/11	2149	4.04	16.76
19	45-SB13-SB-0	WG93367-5	06/28/11	2215	4.04	16.76
20	45-SB05-SB-0	SE3674-5	06/28/11	2240	4.04	16.76

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 06/21/11 06/22/11

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.05 DCB: 16.80

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	45-SB06-SB-0	SE3674-6	06/28/11	2306	4.05	16.76
02	45-SB07-SB-0	SE3674-7	06/28/11	2332	4.04	16.76
03		AR1660 1.0	06/29/11	0023	4.04	16.76
04		AR1660 0.25	06/29/11	1958	4.04	16.76
05	45-SB08-SB-0	SE3674-8	06/30/11	0015	4.04	16.76
06	45-SB09-SB-0	SE3674-9	06/30/11	0041	4.04	16.76
07	45-SB10-SB-0	SE3674-10	06/30/11	0106	4.04	16.76
08	45-SB11-SB-0	SE3674-11	06/30/11	0132	4.04	16.76
09		AR1660 1.0	06/30/11	0223	4.04	16.77
10		AR1660 1.0	06/30/11	1153	4.04	16.74
11	45-SB12-SB-0	SE3674-12	06/30/11	1631	4.04	16.74
12	AX45-DUP01-0	SE3674-13	06/30/11	1657	4.04	16.74
13	45-SB13-SB-0	SE3674-14	06/30/11	1723	4.04	16.75
14	45-SB14-SB-0	SE3674-15	06/30/11	1749	4.05	16.75
15		AR1660 0.25	06/30/11	1840	4.05	16.75
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date(s): 06/21/11 06/22/11

Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Calibration Time(s): 1417 1123

LAB FILE ID: RF0.05: 7EF341 RF0.1: 7EF342 RF0.25: 7EF343
RF1: 7EF340 RF2.5: 7EF344 RF10: 7EF345

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
Aroclor-1016	3590300	3450400	3430400	3310600	3123800	3146900	AVRG	3342070.52	5.482	20.000
(2)	4942200	5014800	4989600	4863700	4597500	4618900	AVRG	4837780.88	3.829	20.000
(3)	8046700	8319600	8498100	8605000	8279600	8179300	AVRG	8321399.33	2.457	20.000
(4)	4609700	4739600	4768900	4818700	4564100	4669400	AVRG	4695080.02	2.083	20.000
(5)	4122300	4189700	4199500	4091500	3953600	4095300	AVRG	4108632.23	2.164	20.000
Aroclor-1221	1610100	1524600	1641100	1328900	1282000	1212700	AVRG	1433223.68	12.683	20.000
(2)	2082300	1981800	2212700	1843600	1827000	1779300	AVRG	1954450.68	8.653	20.000
(3)	4905300	4592500	5003500	4159000	4150000	3956600	AVRG	4461155.63	9.778	20.000
(4)	528720	547090	636920	527640	514450	492340	AVRG	541195.217	9.290	20.000
Aroclor-1232	4738800	4371900	3920600	3500400	3500700	3260000	AVRG	3882071.35	14.814	20.000
(2)	2403400	2460800	2325800	2096300	2096400	1992400	AVRG	2229166.73	8.622	20.000
(3)	3784900	3863700	3686500	3455600	3553800	3466000	AVRG	3635087.53	4.681	20.000
(4)	2104300	2171600	2093600	1938000	1970400	1918300	AVRG	2032707.05	5.115	20.000
(5)	1953200	1874500	1708400	1534100	1532800	1498300	AVRG	1683544.67	11.553	20.000
Aroclor-1242	3252900	3061700	2772500	2550000	2573500	2443100	AVRG	2775618.58	11.529	20.000
(2)	4453500	4283800	3968600	3728900	3762000	3538800	AVRG	3955931.00	8.890	20.000
(3)	7268400	6979000	6715700	6558700	6684000	6347800	AVRG	6758921.92	4.792	20.000
(4)	4092100	3980000	3763500	3639100	3695300	3584200	AVRG	3792369.55	5.302	20.000
(5)	3797200	3621100	3398000	3220700	3250300	3136400	AVRG	3403932.73	7.554	20.000
Aroclor-1248	3835200	3845800	3810400	3819400	3651600	3677100	AVRG	3773251.57	2.269	20.000
(2)	4390200	4422200	4361700	4284800	4043600	3956100	AVRG	4243106.35	4.615	20.000
(3)	5554900	5572700	5508400	5480600	5270400	5170800	AVRG	5426307.33	3.054	20.000
(4)	4547300	4618400	4607800	4643200	4470300	4436500	AVRG	4553912.38	1.860	20.000
(5)	4200400	4289900	4434600	4874300	4795900	4927000	AVRG	4586998.43	6.913	20.000
Aroclor-1254	3911800	3941400	3413600	3397800	3237400	3327200	AVRG	3538206.40	8.688	20.000
(2)	6193000	6096100	5384200	5411600	5292200	5419600	AVRG	5632789.88	7.104	20.000
(3)	6636600	6665900	5857100	5950800	5837800	5962200	AVRG	6151720.22	6.342	20.000
(4)	7672200	7857000	7126300	7546900	7574200	7665000	AVRG	7573592.77	3.230	20.000
(5)	4493300	4530200	4056300	4248000	4361000	4550400	AVRG	4373191.70	4.419	20.000
Aroclor-1260	5328700	5327800	5503200	5388700	5246000	5394800	AVRG	5364875.02	1.612	20.000
(2)	5386300	5583800	5971000	6119300	5907100	6077900	AVRG	5840925.42	5.007	20.000
(3)	3920800	3971300	4346900	4467400	4394900	4602400	AVRG	4283943.02	6.443	20.000
(4)	6901300	6868000	7960900	8548800	8444900	8722200	AVRG	7907692.90	10.519	20.000
(5)	3360800	3327600	3813200	3970200	3932300	4268700	AVRG	3778812.47	9.757	20.000
Tetrachloro-m-xylene	2e+008	2.e+008	2e+008	2e+008	2e+008	2e+008	AVRG	206955117	4.267	20.000
Decachlorobiphenyl	7e+007	7.e+007	7e+007	7e+007	7e+007	7e+007	AVRG	69309604.2	4.346	20.000

Report Date : 28-Jun-2011 16:45

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 21-JUN-2011 14:17
End Cal Date : 22-JUN-2011 11:23
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m\PCB042.
Cal Date : 23-Jun-2011 09:18 jprescott
Curve Type : Average

Calibration File Names:
Level 1: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\GC07EF21.b\7EF341.D
Level 2: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\GC07EF21.b\7EF342.D
Level 3: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\GC07EF21.b\7EF343.D
Level 4: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\GC07EF21.b\7EF340.D
Level 5: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\GC07EF21.b\7EF344.D
Level 6: \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\GC07EF21.b\7EF345.D

	Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	RRF	% RSD
M	1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	3 Aroclor-1221 (1)	1610060	1524610	1641076	1328935	1281962	1212699	1433224	12.683
	(2)	2082300	1981830	2212704	1843569	1826966	1779335	1954451	8.653
	(3)	4905260	4592490	5003544	4159037	4149959	3956644	4461156	9.778
	(4)	528720	547090	636920	527644	514455	492343	541195	9.290
	4 Aroclor-1232 (1)	4738840	4371930	3920616	3500381	3500680	3259982	3882071	14.814
	(2)	2403380	2460800	2325768	2096295	2096361	1992397	2229167	8.622
	(3)	3784860	3863720	3686504	3455622	3553810	3466009	3635088	4.681
	(4)	2104300	2171550	2093652	1938013	1970445	1918282	2032707	5.115
	(5)	1953180	1874500	1708416	1534065	1532797	1498310	1683545	11.553
	5 Aroclor-1016 (1)	3590260	3450440	3430408	3310570	3123809	3146936	3342071	5.482
	(2)	4942180	5014760	4989644	4863698	4597540	4618864	4837781	3.829
	(3)	8046660	8319650	8498128	8605028	8279586	8179344	8321399	2.457
	(4)	4609720	4739600	4768908	4818708	4564090	4669454	4695080	2.083
	(5)	4122280	4189670	4199460	4091541	3953574	4095268	4108632	2.164
	6 Aroclor-1242 (1)	3252940	3061660	2772540	2549983	2573520	2443069	2775619	11.529
	(2)	4453480	4283830	3968568	3728927	3761968	3538813	3955931	8.890
	(3)	7268360	6978950	6715704	6558670	6684004	6347844	6758922	4.792
	(4)	4092120	3979980	3763488	3639112	3695301	3584217	3792370	5.302
	(5)	3797160	3621140	3397952	3220701	3250266	3136378	3403933	7.554
	7 Aroclor-1248 (1)	3835240	3845770	3810428	3819372	3651608	3677091	3773252	2.269
	(2)	4390240	4422170	4361744	4284843	4043570	3956071	4243106	4.615
	(3)	5554900	5572710	5508448	5480626	5270399	5170761	5426307	3.054
	(4)	4547340	4618380	4607828	4643174	4470277	4436475	4553912	1.860
	(5)	4200400	4289860	4434580	4874322	4795873	4926955	4586998	6.913
	8 Aroclor-1254 (1)	3911820	3941420	3413628	3397790	3237393	3327188	3538206	8.688
	(2)	6193020	6096110	5384208	5411649	5292159	5419594	5632790	7.104
	(3)	6636600	6665860	5857112	5950756	5837825	5962169	6151720	6.342

Report Date : 28-Jun-2011 16:45

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 21-JUN-2011 14:17
End Cal Date : 22-JUN-2011 11:23
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m\PCB042.
Cal Date : 23-Jun-2011 09:18 jprescott
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
(4)	7672160	7856950	7126300	7546913	7574178	7665056	7573593	3.230
(5)	4493280	4530190	4056280	4248044	4360974	4550382	4373192	4.419
9 Aroclor-1260 (1)	5328720	5327820	5503180	5388724	5245985	5394821	5364875	1.612
(2)	5386340	5583840	5971052	6119332	5907108	6077881	5840925	5.007
(3)	3920780	3971340	4346864	4467382	4394887	4602405	4283943	6.443
(4)	6901340	6868040	7960916	8548761	8444900	8722200	7907693	10.519
(5)	3360840	3327620	3813180	3970229	3932290	4268716	3778812	9.757
10 Aroclor-1262 (1)	4381620	4266160	4664356	4073248	4426242	4046196	4309637	5.410
(2)	5863260	4455420	4972272	4395767	4831055	4434061	4825306	11.625
(3)	7105320	5964360	6679256	5862962	6372951	5709304	6282359	8.567
(4)	10673560	8458720	9930252	9050147	10437958	9407751	9659731	8.765
(5)	5785920	4885120	5425232	4850917	5411427	5069612	5238038	6.978
11 Aroclor-1268 (1)	3818060	3611860	3488548	3331773	3256790	3200353	3451231	6.817
(2)	12893740	12405530	12240752	12607272	12549008	11907093	12433899	2.716
(3)	10912680	10411040	10352804	10716930	10583436	10178928	10525970	2.524
(4)	9565020	9118960	9066396	9050270	9048365	8738583	9097932	2.922
(5)	4799940	4547540	4394004	4251117	4067487	4071202	4355215	6.580
$ 2 Tetrachloro-m-xylene	193108000	201735000	206016200	217537600	209061620	214272280	206955117	4.267
$ 12 Decachlorobiphenyl	70873000	70450000	73879000	67713600	65452000	67490025	69309604	4.346

Report Date: 28-Jun-2011 16:45

Calibration History

Method : \\TARGET_SERVER\GG\chem\gc07.i\GC07EF21.b\PCB042.m\PCB042.m
Start Cal Date: 21-JUN-2011 14:17
End Cal Date : 22-JUN-2011 11:23
Last Cal Level: 3
Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
22-JUN-2011 09:39	AR1268	7EF341.D
22-JUN-2011 07:03	AR1262	7EF335.D
22-JUN-2011 04:29	AR1232	7EF329.D
22-JUN-2011 01:55	AR1221	7EF323.D
21-JUN-2011 23:21	AR1254	7EF317.D
21-JUN-2011 20:46	AR1248	7EF311.D
21-JUN-2011 18:12	AR1242	7EF305.D
21-JUN-2011 14:43	AR1660	7EF297.D
Cal Level: 2 , Cal Amount: 0.10000		
22-JUN-2011 10:05	AR1268	7EF342.D
22-JUN-2011 07:29	AR1262	7EF336.D
22-JUN-2011 04:55	AR1232	7EF330.D
22-JUN-2011 02:21	AR1221	7EF324.D
21-JUN-2011 23:47	AR1254	7EF318.D
21-JUN-2011 21:12	AR1248	7EF312.D
21-JUN-2011 18:37	AR1242	7EF306.D
21-JUN-2011 15:09	AR1660	7EF298.D
Cal Level: 3 , Cal Amount: 0.25000		
22-JUN-2011 10:31	AR1268	7EF343.D
22-JUN-2011 07:55	AR1262	7EF337.D
22-JUN-2011 05:20	AR1232	7EF331.D
22-JUN-2011 02:46	AR1221	7EF325.D
22-JUN-2011 00:13	AR1254	7EF319.D
21-JUN-2011 21:38	AR1248	7EF313.D
21-JUN-2011 19:03	AR1242	7EF307.D
21-JUN-2011 15:36	AR1660	7EF299.D
Cal Level: 4 , Cal Amount: 1.00000		
22-JUN-2011 09:13	AR1268	7EF340.D
22-JUN-2011 06:37	AR1262	7EF334.D
22-JUN-2011 04:03	AR1232	7EF328.D
22-JUN-2011 01:30	AR1221	7EF322.D
21-JUN-2011 22:56	AR1254	7EF316.D
21-JUN-2011 20:20	AR1248	7EF310.D
21-JUN-2011 17:46	AR1242	7EF304.D
21-JUN-2011 14:17	AR1660	7EF296.D

Cal Level: 5 , Cal Amount: 2.50000		
22-JUN-2011 10:57	AR1268	7EF344.D
22-JUN-2011 08:21	AR1262	7EF338.D
22-JUN-2011 05:46	AR1232	7EF332.D
22-JUN-2011 03:12	AR1221	7EF326.D
22-JUN-2011 00:38	AR1254	7EF320.D
21-JUN-2011 22:04	AR1248	7EF314.D
21-JUN-2011 19:28	AR1242	7EF308.D
21-JUN-2011 16:02	AR1660	7EF300.D

Cal Level: 6 , Cal Amount: 10.00000		
22-JUN-2011 11:23	AR1268	7EF345.D
22-JUN-2011 08:47	AR1262	7EF339.D
22-JUN-2011 06:11	AR1232	7EF333.D
22-JUN-2011 03:38	AR1221	7EF327.D
22-JUN-2011 01:04	AR1254	7EF321.D
21-JUN-2011 22:30	AR1248	7EF315.D
21-JUN-2011 19:55	AR1242	7EF309.D
21-JUN-2011 16:28	AR1660	7EF301.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

21-JUN-2011 14:17	AR1660	7EF296.D
22-JUN-2011 09:13	AR1268	7EF340.D
22-JUN-2011 06:37	AR1262	7EF334.D
22-JUN-2011 04:03	AR1232	7EF328.D
22-JUN-2011 01:30	AR1221	7EF322.D
21-JUN-2011 22:56	AR1254	7EF316.D
21-JUN-2011 20:20	AR1248	7EF310.D
21-JUN-2011 17:20	AR1260	7EF303.D
21-JUN-2011 16:54	AR1016	7EF302.D
21-JUN-2011 17:46	AR1242	7EF304.D

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/21/11 Time: 1654

Lab File ID: 7EF302 Init. Calib. Date(s): 06/21/11 06/22/11

Init. Calib. Times: 1417 1123

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	3342100.0	3154300.0	0.001	-5.62	20.00	AVRG
(2)	4837800.0	4887400.0	0.001	1.02	20.00	AVRG
(3)	8321400.0	8620500.0	0.001	3.59	20.00	AVRG
(4)	4695100.0	4769900.0	0.001	1.59	20.00	AVRG
(5)	4108600.0	4095500.0	0.001	-0.32	20.00	AVRG
Average %D: 0.0600						

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/21/11 Time: 1720

Lab File ID: 7EF303 Init. Calib. Date(s): 06/21/11 06/22/11

Init. Calib. Times: 1417 1123

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	5364900.0	5098600.0	0.001	-4.96	20.00	AVRG
(2)	5840900.0	5618300.0	0.001	-3.81	20.00	AVRG
(3)	4284000.0	4560200.0	0.001	6.45	20.00	AVRG
(4)	7907700.0	7039200.0	0.001	-10.98	20.00	AVRG
(5)	3778800.0	3396600.0	0.001	-10.11	20.00	AVRG
Average %D: -4.690						

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/28/11 Time: 1756

Lab File ID: 7EF507 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	3342100.0	3376300.0	0.001	1.02	20.00	AVRG
(2)	4837800.0	5108100.0	0.001	5.59	20.00	AVRG
(3)	8321400.0	8883700.0	0.001	6.76	20.00	AVRG
(4)	4695100.0	5060500.0	0.001	7.78	20.00	AVRG
(5)	4108600.0	4492200.0	0.001	9.34	20.00	AVRG
Average %D: 6.0800						
Aroclor-1260	5364900.0	5843400.0	0.001	8.92	20.00	AVRG
(2)	5840900.0	6742700.0	0.001	15.44	20.00	AVRG
(3)	4284000.0	4889400.0	0.001	14.13	20.00	AVRG
(4)	7907700.0	9315200.0	0.001	17.80	20.00	AVRG
(5)	3778800.0	4420600.0	0.001	16.98	20.00	AVRG
Average %D: 14.640						
Decachlorobiphenyl	69310000	76510000	0.001	10.39	20.00	AVRG
Tetrachloro-m-xylene	206960000	189510000	0.001	-8.43	20.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/29/11 Time: 0023

Lab File ID: 7EF522 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	3342100.0	3997800.0	0.001	19.62	20.00	AVRG	
(2)	4837800.0	6106700.0	0.001	26.23	20.00	AVRG	<-
(3)	8321400.0	11143000	0.001	33.91	20.00	AVRG	<-
(4)	4695100.0	6174200.0	0.001	31.50	20.00	AVRG	<-
(5)	4108600.0	5252600.0	0.001	27.84	20.00	AVRG	<-
Average %D: 27.820							
Aroclor-1260	5364900.0	7276800.0	0.001	35.64	20.00	AVRG	<-
(2)	5840900.0	8347800.0	0.001	42.92	20.00	AVRG	<-
(3)	4284000.0	6144500.0	0.001	43.43	20.00	AVRG	<-
(4)	7907700.0	12079000	0.001	52.75	20.00	AVRG	<-
(5)	3778800.0	5780400.0	0.001	52.97	20.00	AVRG	<-
Average %D: 45.540							
Decachlorobiphenyl	69310000	88884000	0.001	28.24	20.00	AVRG	<-
Tetrachloro-m-xylene	206960000	245340000	0.001	18.54	20.00	AVRG	

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/29/11 Time: 1958

Lab File ID: 7EF542 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	3342100.0	3070200.0	0.001	-8.14	20.00	AVRG
(2)	4837800.0	4819400.0	0.001	-0.38	20.00	AVRG
(3)	8321400.0	8888800.0	0.001	6.82	20.00	AVRG
(4)	4695100.0	4965000.0	0.001	5.75	20.00	AVRG
(5)	4108600.0	4225300.0	0.001	2.84	20.00	AVRG
Average %D: 1.3600						
Aroclor-1260	5364900.0	5744500.0	0.001	7.08	20.00	AVRG
(2)	5840900.0	6619000.0	0.001	13.32	20.00	AVRG
(3)	4284000.0	4808600.0	0.001	12.25	20.00	AVRG
(4)	7907700.0	9182500.0	0.001	16.12	20.00	AVRG
(5)	3778800.0	4356400.0	0.001	15.28	20.00	AVRG
Average %D: 12.800						
Decachlorobiphenyl	69310000	67303000	0.001	-2.90	20.00	AVRG
Tetrachloro-m-xylene	206960000	180100000	0.001	-12.98	20.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/30/11 Time: 0223

Lab File ID: 7EF557 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	3342100.0	3301100.0	0.001	-1.23	20.00	AVRG	
(2)	4837800.0	5159900.0	0.001	6.66	20.00	AVRG	
(3)	8321400.0	9409300.0	0.001	13.07	20.00	AVRG	
(4)	4695100.0	5225000.0	0.001	11.29	20.00	AVRG	
(5)	4108600.0	4528300.0	0.001	10.22	20.00	AVRG	
Average %D: 8.0000							
Aroclor-1260	5364900.0	6059500.0	0.001	12.95	20.00	AVRG	
(2)	5840900.0	6927600.0	0.001	18.60	20.00	AVRG	
(3)	4284000.0	5092000.0	0.001	18.86	20.00	AVRG	
(4)	7907700.0	9882300.0	0.001	24.97	20.00	AVRG	<-
(5)	3778800.0	4687700.0	0.001	24.05	20.00	AVRG	<-
Average %D: 19.890							
Decachlorobiphenyl	69310000	74546000	0.001	7.55	20.00	AVRG	
Tetrachloro-m-xylene	206960000	201170000	0.001	-2.80	20.00	AVRG	

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/30/11 Time: 1153

Lab File ID: 7EF562 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	3342100.0	3017000.0	0.001	-9.73	20.00	AVRG
(2)	4837800.0	4495500.0	0.001	-7.08	20.00	AVRG
(3)	8321400.0	8265500.0	0.001	-0.67	20.00	AVRG
(4)	4695100.0	4628900.0	0.001	-1.41	20.00	AVRG
(5)	4108600.0	3861400.0	0.001	-6.02	20.00	AVRG
Average %D: -4.980						
Aroclor-1260	5364900.0	5338100.0	0.001	-0.50	20.00	AVRG
(2)	5840900.0	6281600.0	0.001	7.54	20.00	AVRG
(3)	4284000.0	4686900.0	0.001	9.40	20.00	AVRG
(4)	7907700.0	9371200.0	0.001	18.51	20.00	AVRG
(5)	3778800.0	4428900.0	0.001	17.20	20.00	AVRG
Average %D: 10.430						
Decachlorobiphenyl	69310000	70120000	0.001	1.17	20.00	AVRG
Tetrachloro-m-xylene	206960000	194750000	0.001	-5.90	20.00	AVRG

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC07 Calibration Date: 06/30/11 Time: 1840

Lab File ID: 7EF576 Init. Calib. Date(s): 06/21/11 06/21/11

Init. Calib. Times: 1417 1628

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	3342100.0	3606000.0	0.001	7.90	20.00	AVRG
(2)	4837800.0	5016100.0	0.001	3.68	20.00	AVRG
(3)	8321400.0	8638700.0	0.001	3.81	20.00	AVRG
(4)	4695100.0	4922200.0	0.001	4.84	20.00	AVRG
(5)	4108600.0	4303000.0	0.001	4.73	20.00	AVRG
Average %D: 5.0000						
Aroclor-1260	5364900.0	5619600.0	0.001	4.75	20.00	AVRG
(2)	5840900.0	6491000.0	0.001	11.13	20.00	AVRG
(3)	4284000.0	4622100.0	0.001	7.89	20.00	AVRG
(4)	7907700.0	9076400.0	0.001	14.78	20.00	AVRG
(5)	3778800.0	4321700.0	0.001	14.37	20.00	AVRG
Average %D: 10.600						
Decachlorobiphenyl	69310000	69627000	0.001	0.46	20.00	AVRG
Tetrachloro-m-xylene	206960000	224220000	0.001	8.34	20.00	AVRG

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93367-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab Sample ID: WG93367-1 Lab File ID: 7EF513

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SW846 3550

Sulfur Cleanup: (Y/N) N Date Extracted: 06/27/11

Date Analyzed (1): 06/28/11 Date Analyzed (2): 06/28/11

Time Analyzed (1): 2031 Time Analyzed (2): 2031

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): RTX-CLPESTICIDES ID: 0.53(mm) GC Column (2): RTX-CLPESTICIDES2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG93367-LCS	WG93367-2	7EF514	06/28/11	06/28/11
02	WG93367-LCSD	WG93367-3	7EF515	06/28/11	06/28/11
03	45-SB13-SB-06242011	WG93367-4	7EF516	06/28/11	06/28/11
04	45-SB13-SB-06242011	WG93367-5	7EF517	06/28/11	06/28/11
05	45-SB05-SB-06242011	SE3674-5	7EF518	06/28/11	06/28/11
06	45-SB06-SB-06242011	SE3674-6	7EF519	06/28/11	06/28/11
07	45-SB07-SB-06242011	SE3674-7	7EF520	06/28/11	06/28/11
08	45-SB08-SB-06242011	SE3674-8	7EF552	06/30/11	06/30/11
09	45-SB09-SB-06242011	SE3674-9	7EF553	06/30/11	06/30/11
10	45-SB10-SB-06242011	SE3674-10	7EF554	06/30/11	06/30/11
11	45-SB11-SB-06242011	SE3674-11	7EF555	06/30/11	06/30/11
12	45-SB12-SB-06242011	SE3674-12	7EF571	06/30/11	06/30/11
13	AX45-DUP01-06242011	SE3674-13	7EF572	06/30/11	06/30/11
14	45-SB13-SB-06242011	SE3674-14	7EF573	06/30/11	06/30/11
15	45-SB14-SB-06242011	SE3674-15	7EF574	06/30/11	06/30/11
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS: _____

FORM IVPCB

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93367-1
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date: 27-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 28-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: NA
Report Date: 01-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	6.0	ug/Kgdrywt	1	17	17.	6.0	8.5
Aroclor-1221	U	7.9	ug/Kgdrywt	1	17	17.	7.9	8.5
Aroclor-1232	U	9.3	ug/Kgdrywt	1	17	17.	9.3	10.
Aroclor-1242	U	5.8	ug/Kgdrywt	1	17	17.	5.8	8.5
Aroclor-1248	U	6.1	ug/Kgdrywt	1	17	17.	6.1	8.5
Aroclor-1254	U	4.7	ug/Kgdrywt	1	17	17.	4.7	8.5
Aroclor-1260	U	6.0	ug/Kgdrywt	1	17	17.	6.0	8.5
Tetrachloro-M-Xylene	J	52.0	%					
Decachlorobiphenyl		95.8	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG93367-2
LCSD ID: WG93367-3
Project:
SDG: JAX04
Report Date: 01-JUL-11

Received Date: 27-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367

Analysis Date: 28-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Aroclor-1016	167.	152.	91.0	152.	91.0	ug/Kgdrywt	0	50	53-123
Aroclor-1260	167.	174.	104.	174.	104.	ug/Kgdrywt	0	50	58-120
Tetrachloro-M-Xylene			74.2		75.1				56-115
Decachlorobiphenyl			115.		116.				59-124

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Tel:(207) 874-2400 Fax:(207) 775-4029

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MS/MSD Recovery Report

MS ID: WG93367-4
MSD ID: WG93367-5
Sample ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project:
SDG: JAX04

Received Date: 25-JUN-11
Extract Date: 27-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93367
Report Date: 01-JUL-11

Analysis Date: 28-JUN-11
Analyst: JLP
Analysis Method: SW846 8082A
Matrix: SL
% Solids: 80.

Compound	MS Spike	MSD Spike	Conc Units	Samp Conc	MS Conc	MSD Conc	MS Rec (%)	MSD Rec (%)	RPD (%)	RPD Limit	Limits
Aroclor-1016	206.	208.	ug/Kgdrywt	U7.2	190	180	90.5	88.6	1	30	53-123
Aroclor-1260	206.	208.	ug/Kgdrywt	U7.2	240	230	119.	111.	5	30	58-120
Tetrachloro-M-Xylene							70.5	69.6			56-115
Decachlorobiphenyl							92.7	86.0			59-124

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FORM 2
SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

GC Column(1): RTX-CLPESTICIDESID: 0.53 (mm) GC Column(2): RTX-CLPESTICIDES2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG93367-BLANK	WG93367-1	45J	52J	96	84			2
02	WG93367-LCS	WG93367-2	66	74	115	98			0
03	WG93367-LCSD	WG93367-3	67	75	116	99			0
04	45-SB13-SB-06242011	WG93367-4	55J	70	78	92			1
05	45-SB13-SB-06242011	WG93367-5	50J	70	70	86			1
06	45-SB05-SB-06242011	SE3674-5	37J	49J	55J	62			3
07	45-SB06-SB-06242011	SE3674-6	42J	56	76	78			1
08	45-SB07-SB-06242011	SE3674-7	68	86	98	106			0
09	45-SB08-SB-06242011	SE3674-8	40J	61	87	89			1
10	45-SB09-SB-06242011	SE3674-9	57	70	84	89			0
11	45-SB10-SB-06242011	SE3674-10	52J	59	75	75			1
12	45-SB11-SB-06242011	SE3674-11	63	72	89	90			0
13	45-SB12-SB-06242011	SE3674-12	77	91	74	92			0
14	AX45-DUP01-06242011	SE3674-13	70	86	67	86			0
15	45-SB13-SB-06242011	SE3674-14	66	80	59	76			0
16	45-SB14-SB-06242011	SE3674-15	72	85	75	84			0
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (56-115)
S2 (DCB) = Decachlorobiphenyl (59-124)

Column to be used to flag recovery values
J Values outside of QC limits
D Surrogate diluted out

PETROLEUM RANGE ORGANICS DATA

FORM 8
FL-PRO ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

GC Column: ZB-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/01/11 07/01/11

Instrument ID: GC10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.24 S2 : 18.94

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01		FLP50	07/01/11	1850	13.24	18.94
02		FLP200	07/01/11	1932	13.24	18.94
03		FLP100	07/01/11	2015	13.24	18.94
04		FLP20	07/01/11	2057	13.24	18.93
05		FLP5	07/01/11	2139	13.24	18.94
06		FLPIND	07/01/11	2222	13.24	18.93
07	WG93375-BLAN	WG93375-1	07/01/11	2346	13.24	18.93
08	WG93375-LCS	WG93375-2	07/02/11	0029	13.24	18.91
09	WG93375-LCSD	WG93375-3	07/02/11	0111	13.24	18.90
10	45-SB13-SB-0	WG93375-4	07/02/11	0153	13.24	18.92
11	45-SB13-SB-0	WG93375-5	07/02/11	0236	13.24	18.92
12	45-SB05-SB-0	SE3674-5	07/02/11	0318	13.24	18.95
13	45-SB06-SB-0	SE3674-6	07/02/11	0400	13.24	18.95
14	45-SB07-SB-0	SE3674-7	07/02/11	0443	13.24	18.96
15	45-SB08-SB-0	SE3674-8	07/02/11	0525	13.24	18.95
16	45-SB09-SB-0	SE3674-9	07/02/11	0607	13.24	18.95
17		FLP50	07/02/11	0732	13.25	18.94
18	45-SB10-SB-0	SE3674-10	07/02/11	0814	13.24	18.95
19	45-SB11-SB-0	SE3674-11	07/02/11	0856	13.24	18.95
20	45-SB12-SB-0	SE3674-12	07/02/11	0939	13.24	18.95

QC LIMITS
S1 = O-Terphenyl (+/- 0.26 MINUTES)
S2 = n-Triacontane-D62 (+/- 0.38 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
FL-PRO ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

GC Column: ZB-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/01/11 07/01/11

Instrument ID: GC10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 13.24 S2 : 18.94

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	AX45-DUP01-0	SE3674-13	07/02/11	1021	13.24	18.95
02	45-SB13-SB-0	SE3674-14	07/02/11	1103	13.24	18.96
03	45-SB14-SB-0	SE3674-15	07/02/11	1146	13.25	18.95
04		FLP20	07/02/11	1310	13.24	18.93
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

S1 = O-Terphenyl (+/- 0.26 MINUTES)
S2 = n-Triacontane-D62 (+/- 0.38 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 6
FL-PRO INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project NAS JAX SDG No.: JAX04

Instrument ID: GC10 Calibration Date(s): 07/01/11 07/01/11

Column: ZB-1 ID: 0.53 (mm) Calibration Time(s): 1850 2139

LAB FILE ID: RF5: AEG2019 RF20: AEG2018 RF50: AEG2015
RF100: AEG2017 RF200: AEG2016

							COEFFICENTS		%RSD	MAX %RSD
COMPOUND	RF5	RF20	RF50	RF100	RF200	CURVE	A0	A1	OR R^2	OR R^2
FL-PRO peaks C8-C40	616900	2242600	5165300	1e+007	2e+007	LINR	0.63164490	1.565e-004	0.99974	0.99000
C-8	39590	131940	304400	611020	1188900	LINR	-1.5097078	1.688e-004	0.99979	0.99000
C-10	55681	153740	307460	631840	1245800	LINR	-2.3220291	1.624e-004	0.99928	0.99000
C-12	36783	151500	319790	647750	1272400	LINR	-1.3982607	1.579e-004	0.99964	0.99000
C-14	38307	135320	318310	650380	1285300	LINR	-0.5586954	1.559e-004	0.99992	0.99000
C-16	35831	138370	319780	662630	1300400	LINR	-0.4744723	1.538e-004	0.99984	0.99000
C-18	36160	132550	318950	661050	1307600	LINR	-7.89e-002	1.529e-004	0.99990	0.99000
C-38	31023	117980	244330	605740	1220200	LINR	2.28055206	1.628e-004	0.99737	0.99000
C-20	36152	131960	317380	659530	1301400	LINR	-0.1060987	1.535e-004	0.99988	0.99000
C-22	36356	133030	321320	666850	1321100	LINR	3.089e-003	1.513e-004	0.99990	0.99000
C-24	35303	130500	316220	657450	1301400	LINR	5.143e-002	1.535e-004	0.99989	0.99000
C-26	35046	130760	318080	661780	1314400	LINR	0.18626186	1.52e-004	0.99990	0.99000
C-28	34653	129980	316670	657080	1301800	LINR	9.887e-002	1.534e-004	0.99990	0.99000
C-36	32975	123770	279950	629280	1256000	LINR	1.08163236	1.587e-004	0.99916	0.99000
C-30	35150	130430	318340	659660	1305900	LINR	5.236e-002	1.53e-004	0.99991	0.99000
C-32	33413	127020	310320	643130	1275300	LINR	0.13971534	1.566e-004	0.99991	0.99000
C-34	33870	128100	311280	657860	1304900	LINR	0.42017297	1.529e-004	0.99981	0.99000
C-40	30605	115620	222690	597050	1211400	LINR	3.15734113	1.635e-004	0.99542	0.99000
O-Terphenyl	375780	370050	349100	365260	354120	LINR	0.18532015	1.372e-004	0.99555	0.99000
n-Triacontane-D62	1704400	1629100	1620900	1674700	1626900	LINR	0.59066373	1.813e-004	0.99764	0.99000

FORM VI FL-PRO

Report Date : 11-Jul-2011 12:10

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 01-JUL-2011 18:50
End Cal Date : 01-JUL-2011 21:39
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : HP Genie
Method file : \\target_server\GG\chem\gc10.i\GC10EG02B1.b\flpb001A.m
Cal Date : 05-Jul-2011 09:11 acronin

Calibration File Names:
Level 1: \\target_server\GG\chem\gc10.i\GC10EG02B1.b\AEG2019.d
Level 2: \\target_server\GG\chem\gc10.i\GC10EG02B1.b\AEG2018.d
Level 3: \\target_server\GG\chem\gc10.i\GC10EG02B1.b\AEG2015.d
Level 4: \\target_server\GG\chem\gc10.i\GC10EG02B1.b\AEG2017.d
Level 5: \\target_server\GG\chem\gc10.i\GC10EG02B1.b\AEG2016.d

	Compound	5.0000 Level 1	20.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
M	1 FL-PRO peaks C8-C40	616903	2242569	5165265	10960094	21714405	LINR	0.63164	6388		0.99974
	2 C-8	39590	131942	304404	611017	1188938	LINR	-1.50971	5926		0.99979
	3 C-10	55681	153740	307463	631840	1245829	LINR	-2.32203	6157		0.99928
	4 C-12	36783	151496	319791	647751	1272395	LINR	-1.39826	6334		0.99964
	5 C-14	38307	135315	318310	650376	1285283	LINR	-0.55870	6416		0.99992
	6 C-16	35831	138374	319782	662634	1300422	LINR	-0.47447	6503		0.99984
S	7 Petroleum Range Organics	616903	2242569	5165265	10960094	21714405	LINR	0.63164	6388		0.99974
	8 C-18	36160	132550	318946	661052	1307592	LINR	-0.07894	6542		0.99990
	10 C-20	36152	131956	317375	659530	1301394	LINR	-0.10610	6513		0.99988
	11 C-22	36356	133033	321320	666854	1321065	LINR	0.00309	6610		0.99990
	12 C-24	35303	130495	316222	657446	1301447	LINR	0.05143	6514		0.99989
	13 C-26	35046	130756	318077	661775	1314435	LINR	0.18626	6580		0.99990
	14 C-28	34653	129977	316667	657078	1301834	LINR	0.09887	6518		0.99991
	16 C-30	35150	130428	318344	659664	1305900	LINR	0.05236	6537		0.99991
	17 C-32	33413	127025	310316	643132	1275336	LINR	0.13972	6386		0.99991

Report Date : 11-Jul-2011 12:10

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 01-JUL-2011 18:50
End Cal Date : 01-JUL-2011 21:39
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : HP Genie
Method file : \\target_server\GG\chem\gc10.i\GC10EG02B1.b\flpb001A.m
Cal Date : 05-Jul-2011 09:11 acronin

	Compound	5.0000 Level 1	20.0000 Level 2	50.0000 Level 3	100.0000 Level 4	200.0000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
18	C-34	33870	128097	311278	657865	1304918	LINR	0.42017	6540		0.99981
19	C-36	32975	123772	279953	629284	1256054	LINR	1.08163	6301		0.99916
20	C-38	31023	117982	244329	605737	1220206	LINR	2.28055	6142		0.99737
21	C-40	30605	115623	222688	597053	1211350	LINR	3.15734	6115		0.99542
$ 9	O-Terphenyl	375779	370052	349098	365259	354118	LINR	0.18532	7290		0.99555
$ 15	n-Triacontane-D62	1704411	1629095	1620908	1674684	1626877	LINR	0.59066	5517		0.99764

Report Date : 11-Jul-2011 12:10

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 01-JUL-2011 18:50
End Cal Date : 01-JUL-2011 21:39
Quant Method : ESTD
Origin : Included
Target Version : 4.12
Integrator : HP Genie
Method file : \\target_server\GG\chem\gc10.i\GC10EG02B1.b\flpb001A.m
Cal Date : 05-Jul-2011 09:11 acronin

Curve	Formula	Units
Linear	Amt = b + Rsp/m1	Response

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC10 Calibration Date: 07/01/11 Time: 2222

Lab File ID: AEG2020 Init. Calib. Date(s): 07/01/11 07/01/11

Init. Calib. Times: 1850 2139

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
FL-PRO peaks C8-C40	859.46000	850.00000	6451.2000	0.01	1.11	25.00	LINR
C-8	50.958000	50.000000	6218.4000	0.01	1.92	25.00	LINR
C-10	53.313000	50.000000	6850.6000	0.01	6.63	25.00	LINR
C-12	51.350000	50.000000	6681.7000	0.01	2.70	25.00	LINR
C-14	50.805000	50.000000	6591.3000	0.01	1.61	25.00	LINR
C-16	49.580000	50.000000	6509.8000	0.01	-0.84	25.00	LINR
C-18	50.339000	50.000000	6596.5000	0.01	0.68	25.00	LINR
C-38	52.375000	50.000000	6153.8000	0.01	4.75	25.00	LINR
C-20	50.330000	50.000000	6569.5000	0.01	0.66	25.00	LINR
C-22	49.974000	50.000000	6606.1000	0.01	-0.05	25.00	LINR
C-24	50.677000	50.000000	6596.0000	0.01	1.35	25.00	LINR
C-26	49.977000	50.000000	6552.3000	0.01	-0.05	25.00	LINR
C-28	50.183000	50.000000	6528.5000	0.01	0.37	25.00	LINR
C-36	49.417000	50.000000	6091.4000	0.01	-1.17	25.00	LINR
C-30	50.031000	50.000000	6534.6000	0.01	0.06	25.00	LINR
C-32	50.849000	50.000000	6476.1000	0.01	1.70	25.00	LINR
C-34	48.173000	50.000000	6246.1000	0.01	-3.65	25.00	LINR
C-40	51.132000	50.000000	5867.4000	0.01	2.26	25.00	LINR
O-Terphenyl	51.614000	50.000000	7498.0000	0.01	3.23	25.00	LINR
n-Triacontane-D62	305.19000	300.00000	5601.5000	0.01	1.73	25.00	LINR

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC10 Calibration Date: 07/02/11 Time: 0732

Lab File ID: AEG2033 Init. Calib. Date(s): 07/01/11 07/01/11

Init. Calib. Times: 1850 2139

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
FL-PRO peaks C8-C40	842.51000	850.00000	6334.2000	0.01	-0.88	25.00	LINR
C-8	51.523000	50.000000	6285.4000	0.01	3.05	25.00	LINR
C-10	50.615000	50.000000	6518.4000	0.01	1.23	25.00	LINR
C-12	51.460000	50.000000	6695.6000	0.01	2.92	25.00	LINR
C-14	52.439000	50.000000	6800.9000	0.01	4.88	25.00	LINR
C-16	51.808000	50.000000	6799.6000	0.01	3.62	25.00	LINR
C-18	52.274000	50.000000	6849.7000	0.01	4.55	25.00	LINR
C-38	41.556000	50.000000	4824.8000	0.01	-16.89	25.00	LINR
C-20	52.187000	50.000000	6811.3000	0.01	4.37	25.00	LINR
C-22	52.066000	50.000000	6882.7000	0.01	4.13	25.00	LINR
C-24	51.674000	50.000000	6725.8000	0.01	3.35	25.00	LINR
C-26	51.431000	50.000000	6743.6000	0.01	2.86	25.00	LINR
C-28	50.947000	50.000000	6628.1000	0.01	1.89	25.00	LINR
C-36	45.989000	50.000000	5659.4000	0.01	-8.02	25.00	LINR
C-30	49.574000	50.000000	6474.9000	0.01	-0.85	25.00	LINR
C-32	49.820000	50.000000	6344.6000	0.01	-0.36	25.00	LINR
C-34	49.277000	50.000000	6390.6000	0.01	-1.45	25.00	LINR
C-40	37.875000	50.000000	4246.1000	0.01	-24.25	25.00	LINR
O-Terphenyl	54.035000	50.000000	7851.0000	0.01	8.07	25.00	LINR
n-Triacontane-D62	309.72000	300.00000	5685.0000	0.01	3.24	25.00	LINR

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Instrument ID: GC10 Calibration Date: 07/02/11 Time: 1310

Lab File ID: AEG2041 Init. Calib. Date(s): 07/01/11 07/01/11

Init. Calib. Times: 1850 2139

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF20.000 or AMOUNT	CCAL RRF20.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
FL-PRO peaks C8-C40	350.80000	340.00000	6574.3000	0.01	3.18	25.00	LINR
C-8	20.574000	20.000000	6543.2000	0.01	2.87	25.00	LINR
C-10	19.445000	20.000000	6700.7000	0.01	-2.78	25.00	LINR
C-12	21.153000	20.000000	7141.4000	0.01	5.76	25.00	LINR
C-14	20.557000	20.000000	6774.2000	0.01	2.78	25.00	LINR
C-16	20.657000	20.000000	6870.7000	0.01	3.28	25.00	LINR
C-18	21.400000	20.000000	7025.8000	0.01	7.00	25.00	LINR
C-38	21.157000	20.000000	5797.0000	0.01	5.78	25.00	LINR
C-20	21.162000	20.000000	6925.7000	0.01	5.81	25.00	LINR
C-22	20.854000	20.000000	6891.2000	0.01	4.27	25.00	LINR
C-24	20.347000	20.000000	6610.6000	0.01	1.74	25.00	LINR
C-26	20.373000	20.000000	6641.2000	0.01	1.86	25.00	LINR
C-28	19.612000	20.000000	6359.0000	0.01	-1.94	25.00	LINR
C-36	20.883000	20.000000	6238.6000	0.01	4.42	25.00	LINR
C-30	20.477000	20.000000	6676.2000	0.01	2.38	25.00	LINR
C-32	20.482000	20.000000	6494.7000	0.01	2.41	25.00	LINR
C-34	20.506000	20.000000	6568.1000	0.01	2.53	25.00	LINR
C-40	21.158000	20.000000	5503.7000	0.01	5.79	25.00	LINR
O-Terphenyl	56.812000	50.000000	8255.7000	0.01	13.62	25.00	LINR
n-Triacontane-D62	299.60000	300.00000	5498.7000	0.01	-0.13	25.00	LINR

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG93375-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Lab File ID: AEG2022 Lab Sample ID: WG93375-1

Instrument ID: GC10 Date Extracted: 06/28/11

Matrix: (soil/water) SOIL Date Analyzed: 07/01/11

Level:(low/med) LOW Time Analyzed: 2346

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG93375-LCS	WG93375-2	AEG2023	07/02/11	0029
02	WG93375-LCSD	WG93375-3	AEG2024	07/02/11	0111
03	45-SB13-SB-06242011	WG93375-4	AEG2025	07/02/11	0153
04	45-SB13-SB-06242011	WG93375-5	AEG2026	07/02/11	0236
05	45-SB05-SB-06242011	SE3674-5	AEG2027	07/02/11	0318
06	45-SB06-SB-06242011	SE3674-6	AEG2028	07/02/11	0400
07	45-SB07-SB-06242011	SE3674-7	AEG2029	07/02/11	0443
08	45-SB08-SB-06242011	SE3674-8	AEG2030	07/02/11	0525
09	45-SB09-SB-06242011	SE3674-9	AEG2031	07/02/11	0607
10	45-SB10-SB-06242011	SE3674-10	AEG2034	07/02/11	0814
11	45-SB11-SB-06242011	SE3674-11	AEG2035	07/02/11	0856
12	45-SB12-SB-06242011	SE3674-12	AEG2036	07/02/11	0939
13	AX45-DUP01-06242011	SE3674-13	AEG2037	07/02/11	1021
14	45-SB13-SB-06242011	SE3674-14	AEG2038	07/02/11	1103
15	45-SB14-SB-06242011	SE3674-15	AEG2039	07/02/11	1146
16					
17					
18					
19					
20					
21					
22					
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27					
28					
29					
30					

COMMENTS:

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG93375-1
Client ID: Method Blank Sample
Project:
SDG: JAX04

Sample Date:
Received Date: 28-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 01-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: NA
Report Date: 05-JUL-11

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Petroleum Range Organics	U	5.7	mg/Kgdrywt	1	20	20.	5.7	10.
o-Terphenyl		78.8	%					
n-Triacontane-D62		80.0	%					

600 Technology Way
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Tel:(207) 874-2400 Fax:(207) 775-4029

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ANALYTICAL SERVICES

Cert No E87604

LCS/LCSD Recovery Report

LCS ID: WG93375-2
LCSD ID: WG93375-3
Project:
SDG: JAX04
Report Date: 05-JUL-11

Received Date: 28-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Petroleum Range Organics	57.0	48.0	84.2	47.0	82.4	mg/Kgdrywt	2	30	63-153
o-Terphenyl			100.		93.9				62-109
n-Triacontane-D62			29.0J		25.0J				70-130

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

MS/MSD Recovery Report

MS ID: WG93375-4
MSD ID: WG93375-5
Sample ID: SE3674-14
Client ID: 45-SB13-SB-06242011
Project:
SDG: JAX04

Received Date: 25-JUN-11
Extract Date: 28-JUN-11
Extracted By: JMS
Extraction Method: SW846 3550
Lab Prep Batch: WG93375
Report Date: 05-JUL-11

Analysis Date: 02-JUL-11
Analyst: AC
Analysis Method: FL-PRO
Matrix: SL
% Solids: 80.

Compound	MS Spike	MSD Spike	Conc Units	Samp Conc	MS Conc	MSD Conc	MS Rec (%)	MSD Rec (%)	RPD (%)	RPD Limit	Limits
Petroleum Range Organics	68.8	69.3	mg/Kgdrywt	200	270	300	102.	144.	10	30	63-153
o-Terphenyl							87.9	105.			62-109
n-Triacontane-D62							30.3J	45.3J			70-130

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http://www.katahdinlab.com

FORM 2
SOIL FL-PRO SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: NAS JAX SDG No.: JAX04

Level: (low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 OTP#	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG93375-BLANK	WG93375-1	83	80							0
02	WG93375-LCS	WG93375-2	29J	98							1
03	WG93375-LCSD	WG93375-3	25J	94							1
04	45-SB13-SB-06242011	WG93375-4	30J	87							1
05	45-SB13-SB-06242011	WG93375-5	45J	104							1
06	45-SB05-SB-06242011	SE3674-5	105	102							0
07	45-SB06-SB-06242011	SE3674-6	118	108							0
08	45-SB07-SB-06242011	SE3674-7	128	113J							1
09	45-SB08-SB-06242011	SE3674-8	117	106							0
10	45-SB09-SB-06242011	SE3674-9	127	103							0
11	45-SB10-SB-06242011	SE3674-10	120	96							0
12	45-SB11-SB-06242011	SE3674-11	120	98							0
13	45-SB12-SB-06242011	SE3674-12	115	123J							1
14	AX45-DUP01-06242011	SE3674-13	102	106							0
15	45-SB13-SB-06242011	SE3674-14	119	95							0
16	45-SB14-SB-06242011	SE3674-15	113	102							0
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1	= n-Triacontane-D62	(70-130)
S2 (OTP)	= O-Terphenyl	(62-109)

Column to be used to flag recovery values
J Values outside of contract required QC limits
D Surrogate diluted out

NAS JACKSONVILLE
SOIL DATA
JAX04

FRACTION	CHEMICAL	JAX45-DUP01-06242011	UNITS	AX45-SB12-SB-0624201	RPD	D
OV	TETRACHLOROETHENE	2.1 J	UG/KG	2.6 J	21.28	0.50

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

NAS JACKSONVILLE
SOIL DATA
JAX04

FRACTION	CHEMICAL	JAX45-DUP01-06242011	UNITS	AX45-SB12-SB-0624201	RPD	D	
PAH	1-METHYLNAPHTHALENE	3.6 J	UG/KG	5.9 J	48.42	2.30	
PAH	2-METHYLNAPHTHALENE	2.6 J	UG/KG	5.7 J	74.70	3.10	N/A < 2x R.L.
PAH	ACENAPHTHENE	13 J	UG/KG	18 J	32.26	5.00	
PAH	ACENAPHTHYLENE	2.8 J	UG/KG	2.3 J	19.61	0.50	
PAH	ANTHRACENE	18 J	UG/KG	13 J	32.26	5.00	
PAH	BENZO(A)ANTHRACENE	110	UG/KG	82	29.17	28.00	
PAH	BENZO(A)PYRENE	120	UG/KG	110	8.70	10.00	
PAH	BENZO(B)FLUORANTHENE	190	UG/KG	190	0.00	0.00	
PAH	BENZO(G,H,I)PERYLENE	70	UG/KG	67	4.38	3.00	
PAH	BENZO(K)FLUORANTHENE	69	UG/KG	60	13.95	9.00	
PAH	CHRYSENE	120	UG/KG	120	0.00	0.00	
PAH	DIBENZO(A,H)ANTHRACENE	20 J	UG/KG	18 J	10.53	2.00	
~~PAH~~	~~FLUORANTHENE~~	~~ND~~	~~UG/KG~~	~~250~~	200.00	~~250.00~~	
PAH	FLUORENE	8.7 J	UG/KG	14 J	46.70	5.30	
PAH	INDENO(1,2,3-CD)PYRENE	100 J	UG/KG	99 J	1.01	1.00	
PAH	NAPHTHALENE	3 J	UG/KG	13 J	125.00	10.00	N/A < 2x R.L.
PAH	PHENANTHRENE	130	UG/KG	160	20.69	30.00	
PAH	PYRENE	200	UG/KG	160	22.22	40.00	

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

NAS JACKSONVILLE

SOIL DATA

Dilution JAX04

FRACTION	CHEMICAL	AX45-DUP01-06242011D	UNITS	AX45-SB12-SB-0624201	RPD	D
PAH	1-METHYLNAPHTHALENE	ND	UG/KG	5.9 J	200.00	5.90
PAH	2-METHYLNAPHTHALENE	ND	UG/KG	5.7 J	200.00	5.70
PAH	ACENAPHTHENE	ND	UG/KG	18 J	200.00	18.00
PAH	ACENAPHTHYLENE	ND	UG/KG	2.3 J	200.00	2.30
PAH	ANTHRACENE	ND	UG/KG	13 J	200.00	13.00
PAH	BENZO(A)ANTHRACENE	ND	UG/KG	82	200.00	82.00
PAH	BENZO(A)PYRENE	ND	UG/KG	110	200.00	110.00
PAH	BENZO(B)FLUORANTHENE	ND	UG/KG	190	200.00	190.00
PAH	BENZO(G,H,I)PERYLENE	ND	UG/KG	67	200.00	67.00
PAH	BENZO(K)FLUORANTHENE	ND	UG/KG	60	200.00	60.00
PAH	CHRYSENE	ND	UG/KG	120	200.00	120.00
PAH	DIBENZO(A,H)ANTHRACENE	ND	UG/KG	18 J	200.00	18.00
PAH	FLUORANTHENE	300	UG/KG	250	18.18	50.00
PAH	FLUORENE	ND	UG/KG	14 J	200.00	14.00
PAH	INDENO(1,2,3-CD)PYRENE	ND	UG/KG	99 J	200.00	99.00
PAH	NAPHTHALENE	ND	UG/KG	13 J	200.00	13.00
PAH	PHENANTHRENE	ND	UG/KG	160	200.00	160.00
PAH	PYRENE	ND	UG/KG	160	200.00	160.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

NAS JACKSONVILLE
SOIL DATA
JAX04

FRACTION	CHEMICAL	JAX45-DUP01-06242011	UNITS	AX45-SB12-SB-0624201	RPD	D
OS	BIS(2-ETHYLHEXYL)PHTHALATE	230 J	UG/KG	ND	200.00	230.00

N/A - 2X R.L.

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

NAS JACKSONVILLE
SOIL DATA
JAX04

FRACTION	CHEMICAL	JAX45-DUP01-06242011	UNITS	AX45-SB12-SB-0624201	RPD	D
PET	TPH (C08-C40)	190	MG/KG	230	19.05	40.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. PATE** **DATE:** **AUGUST 16, 2011**

FROM: **JOSEPH KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TAL METALS, TOTAL SOLIDS**
NAS JACKSONVILLE, CTO 0112
SAMPLE DELIVERY GROUP (SDG) – JAX004

SAMPLES: 11 / Soil / METALS

JAX45-DUP01-06242011	JAX45-SB05-SB-06242011	JAX45-SB06-SB-06242011
JAX45-SB07-SB-06242011	JAX45-SB08-SB-06242011	JAX45-SB09-SB-06242011
JAX45-SB10-SB-06242011	JAX45-SB11-SB-06242011	JAX45-SB12-SB-06242011
JAX45-SB13-SB-06242011	JAX45-SB14-SB-06242011	

Overview

The sample set for NAS Jacksonville, CTO 0112, SDG JAX004 consisted of eleven (11) soil samples. The samples were analyzed for metals as indicated above. One (1) field duplicate sample pair was included in the Sample Delivery Group (SDG); JAX45-DUP01-06242011 / JAX45-SB12-SB-06242011.

The samples were collected by Tetra Tech NUS on June 23 and 24, 2011 and analyzed by Katahdin Analytical Services. The analysis was conducted in accordance with SW-846 Method 6010 and 7471B analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • Initial / Continuing Calibration
• Laboratory / Continuing / Preparation Blank Results
• Field Duplicate Results
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

METALS

The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level (mg/kg)
Vanadium[1]	0.456 µg/L	0.228
Potassium[1]	422.7 µg/L	211.35
Beryllium[1]	0.053 µg/L	0.027
Barium[2]	0.051 mg/kg	0.255

Calcium[2]	13.00 mg/kg	65.00
Chromium[2]	0.173 mg/kg	0.865
Iron[2]	4.398 mg/kg	21.99
Magnesium[2]	4.449 mg/kg	22.245
Nickel[2]	0.100 mg/kg	0.500
Thallium[2]	0.104 mg/kg	0.520
Sodium[2]	11.78 mg/kg	58.9
Mercury[3]	0.007 mg/kg	0.035

(1) Maximum concentration present in a method/continuing calibration blanks affecting all soil samples.
(2) Maximum concentration present in a preparation blank PBSBF27ICS0 affecting all soil samples.
(3) Maximum concentration present in a preparation blank PBSBF29HGS0 affecting all soil samples.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level for beryllium, chromium, mercury, nickel, potassium, and sodium were qualified "U" as a result of laboratory blank contamination.

The relative percent difference (RPD) was greater than the 50% quality control limit for aluminum, barium, cadmium, chromium, iron, lead, magnesium, and zinc for the field duplicate samples JAX45-DUP01-06242011 and JAX45-SB12-SB-06242011. The positive aforementioned metals were qualified estimated, (J).

Additional Comments

Positive results reported below the Limit of Quantitation (LOQ) but above the method detection limit (MDL) were qualified as estimated, (J).

Executive Summary

Laboratory Performance: Sample results were qualified for blank contamination.

Other Factors Affecting Data Quality: Positive results reported below the Limit of Quantitation (LOQ) but above the method detection limit (MDL) were qualified as estimated, (J). Sample metal results were qualified for field duplicate RPD quality control limit non-compliances.

The data for these analyses were reviewed with reference to the EPA National Functional Guidelines for Inorganic Data Validation (10/2004), USEPA SW-846 Methods 6010 and 7471B, and Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011			JAX45-SB07-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-013			SE3674-005			SE3674-006			SE3674-007		
FRACTION: M	SAMP_DATE	6/24/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.8			72.3			85.7			82.2		
	DUP_OF	JAX45-SB12-SB-06242011											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		689	J	G	1980	J	G	2730	J	G	2430	J	G
ANTIMONY		0.06	U		0.08	U		0.06	U		0.06	U	
ARSENIC		0.68			0.54	J	P	0.64	J	P	0.66	J	P
BARIUM		7.3	J	G	7.4	J	G	6.3	J	G	8.5	J	G
BERYLLIUM		0.02	U	A	0.05	J	P	0.06	J	P	0.09	J	P
CADMIUM		3.6	J	G	0.7	J	GP	0.37	J	GP	0.78	J	GP
CALCIUM		5020			3420			1630			11400		
CHROMIUM		2.6	J	G	4.7	J	G	3.4	J	G	6.7	J	G
COBALT		0.1	J	P	0.21	J	P	0.13	J	P	0.29	J	P
COPPER		25.8			4.1			3.2			7.2		
IRON		840	J	G	615	J	G	1040	J	G	1470	J	G
LEAD		17.9	J	G	22.5	J	G	14	J	G	47.9	J	G
MAGNESIUM		72.1	J	G	117	J	G	136	J	G	200	J	G
MANGANESE		53.6			9.8			14.2			25.6		
MERCURY		0.04			0.02	U	A	0.02	U	A	0.02	U	A
NICKEL		0.82	J	P	1.3	J	P	1.1	J	P	1.5	J	P
POTASSIUM		25.8	U	A	56.6	U	A	74	U	A	100	U	A
SELENIUM		0.14	U		0.2	U		0.15	U		0.15	U	
SILVER		0.02	U		0.03	U		0.02	U		0.03	J	P
SODIUM		32.6	U	A	30.9	U	A	37.1	U	A	36.1	U	A
THALLIUM		0.07	U		0.1	U		0.08	U		0.07	U	
VANADIUM		4			2.1	J	P	3			4		
ZINC		114	J	G	24.8	J	G	24.7	J	G	31.4	J	G

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-008			SE3674-009			SE3674-010			SE3674-011		
FRACTION: M	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		209	J	G	3770	J	G	2060	J	G	2690	J	G
ANTIMONY		0.06	U		0.07	U		0.06	U		0.15	J	P
ARSENIC		0.56	J	P	0.82			0.74			0.59	J	P
BARIUM		4.8	J	G	7.9	J	G	4.8	J	G	10.4	J	G
BERYLLIUM		0.02	U	A	0.07	J	P	0.03	J	P	0.12	J	P
CADMIUM		0.05	J	GP	0.06	J	GP	0.05	J	GP	0.26	J	GP
CALCIUM		766			16000			5870			61000		
CHROMIUM		0.64	U	A	4.1	J	G	2.6	J	G	5.5	J	G
COBALT		0.03	U		0.18	J	P	0.08	J	P	0.35	J	P
COPPER		1.8	J	P	4.1			1.8	J	P	3.9		
IRON		193	J	G	1010	J	G	396	J	G	710	J	G
LEAD		4.9	J	G	5.4	J	G	3.2	J	G	9.3	J	G
MAGNESIUM		26	J	G	274	J	G	128	J	G	743	J	G
MANGANESE		6.7			10.7			6.8			23		
MERCURY		0.02	U	A	0.02	U	A	0.02	U	A	0.02	U	A
NICKEL		0.12	U	A	1	J	P	0.74	J	P	1.7	J	P
POTASSIUM		19.3	U	A	124	U	A	58.8	U	A	137	U	A
SELENIUM		0.16	U		0.17	U		0.15	U		0.17	U	
SILVER		0.02	U		0.03	U		0.02	U		0.03	U	
SODIUM		19.5	U	A	32.4	U	A	25.9	U	A	55.5	U	A
THALLIUM		0.08	U		0.08	U		0.07	U		0.08	U	
VANADIUM		0.81	J	P	4.4			2.1	J	P	7		
ZINC		1.7	J	GP	14.9	J	G	6.6	J	G	21.2	J	G

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-012			SE3674-014			SE3674-015		
FRACTION: M	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.0			79.6			86.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		1730	J	G	4000	J	G	4070	J	G
ANTIMONY		0.08	J	P	0.08	J	P	0.07	U	
ARSENIC		0.81	J	P	0.58	J	P	0.8	J	P
BARIUM		19.2	J	G	11	J	G	7.2	J	G
BERYLLIUM		0.15	J	P	0.09	J	P	0.06	J	P
CADMIUM		15.8	J	G	1.2	J	G	0.14	J	GP
CALCIUM		8340			6550			987		
CHROMIUM		28.9	J	G	6.7	J	G	4.5	J	G
COBALT		1.3	J	P	0.39	J	P	0.17	J	P
COPPER		24.4			5.2			4.2		
IRON		2320	J	G	1010	J	G	1860	J	G
LEAD		136	J	G	30.4	J	G	9.6	J	G
MAGNESIUM		451	J	G	232	J	G	160	J	G
MANGANESE		70.7			17.9			13.8		
MERCURY		0.07			0.03	U	A	0.04	U	A
NICKEL		3.9	J	P	1.9	J	P	1.2	J	P
POTASSIUM		100	U	A	101	U	A	90.1	U	A
SELENIUM		0.18	U		0.13	U		0.18	U	
SILVER		0.08	J	P	0.03	J	P	0.07	J	P
SODIUM		27.2	U	A	30.5	U	A	30.2	U	A
THALLIUM		0.09	U		0.07	U		0.09	U	
VANADIUM		10			3.9			5.3		
ZINC		623	J	G	42.3	J	G	12.9	J	G

PROJ_NO: 01511	NSAMPLE	JAX45-DUP01-06242011			JAX45-SB05-SB-06242011			JAX45-SB06-SB-06242011			JAX45-SB07-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-13			SE3674-5			SE3674-6			SE3674-7		
FRACTION: MISC	SAMP_DATE	6/24/2011			6/23/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	92.8			72.3			85.7			82.2		
	DUP_OF	JAX45-SB12-SB-06242011											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL SOLIDS		93			72			86			82		

PROJ_NO: 01511	NSAMPLE	JAX45-SB08-SB-06242011			JAX45-SB09-SB-06242011			JAX45-SB10-SB-06242011			JAX45-SB11-SB-06242011		
SDG: JAX04	LAB_ID	SE3674-8			SE3674-9			SE3674-10			SE3674-11		
FRACTION: MISC	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	94.7			85.8			82.3			83.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL SOLIDS		95			86			82			83		

PROJ_NO: 01511	NSAMPLE	JAX45-SB12-SB-06242011			JAX45-SB13-SB-06242011			JAX45-SB14-SB-06242011			TB-03		
SDG: JAX04	LAB_ID	SE3674-12			SE3674-14			SE3674-15			SE3674-17		
FRACTION: MISC	SAMP_DATE	6/24/2011			6/24/2011			6/24/2011			6/24/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	%			%			%			%		
	PCT_SOLIDS	93.0			79.6			86.0			100.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TOTAL SOLIDS		93			80			86			100		

Appendix B

Results as Reported by the Laboratory

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: AX45-DUP01-06242011
Matrix: SOIL
SDG Name: JAX04
Percent Solids: 92.8
Lab Sample ID: SE3674-013

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	689		J	P	1	24	0.57	8.0
7440-36-0	ANTIMONY, TOTAL	0.06	U	J	P	1	0.64	0.06	0.40
7440-38-2	ARSENIC, TOTAL	0.68			P	1	0.64	0.05	0.40
7440-39-3	BARIUM, TOTAL	7.3		J	P	1	0.40	0.02	0.24
7440-41-7	BERYLLIUM, TOTAL	0.02	I	J	P	1	0.40	0.006	0.040
7440-43-9	CADMIUM, TOTAL	3.6			P	1	0.80	0.006	0.24
7440-70-2	CALCIUM, TOTAL	5020	B	J	P	1	8.0	1.43	6.4
7440-47-3	CHROMIUM, TOTAL	2.6			P	1	1.2	0.02	0.32
7440-48-4	COBALT, TOTAL	0.1	I		P	1	2.4	0.02	0.32
7440-50-8	COPPER, TOTAL	25.8			P	1	2.0	0.13	0.80
7439-89-6	IRON, TOTAL	840		J	P	1	8.0	1.14	6.4
7439-92-1	LEAD, TOTAL	17.9			P	1	0.40	0.07	0.32
7439-95-4	MAGNESIUM, TOTAL	72.1		J	P	1	8.0	0.55	6.4
7439-96-5	MANGANESE, TOTAL	53.6		J	P	1	0.40	0.13	0.32
7439-97-6	MERCURY, TOTAL	0.04			CV	1	0.031	0.005	0.016
7440-02-0	NICKEL, TOTAL	0.82	I	J	P	1	3.2	0.04	0.32
7440-09-7	POTASSIUM, TOTAL	25.8	I		P	1	80	2.33	40
7782-49-2	SELENIUM, TOTAL	0.14	U		P	1	0.80	0.14	0.56
7440-22-4	SILVER, TOTAL	0.02	U		P	1	1.2	0.02	0.32
7440-23-5	SODIUM, TOTAL	32.6	I	J	P	1	80	1.19	40
7440-28-0	THALLIUM, TOTAL	0.07	U		P	1	1.2	0.07	0.40
7440-62-2	VANADIUM, TOTAL	4.0			P	1	2.0	0.03	0.32
7440-66-6	ZINC, TOTAL	114			P	1	2.0	0.14	0.80

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: 45-SB05-SB-06242011
Matrix: SOIL
SDG Name: JAX04
Percent Solids: 72.3
Lab Sample ID: SE3674-005

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	1980		J	P	1	35	0.84	12
7440-36-0	ANTIMONY, TOTAL	0.08	U	J	P	1	0.94	0.08	0.59
7440-38-2	ARSENIC, TOTAL	0.54	I		P	1	0.94	0.08	0.59
7440-39-3	BARIUM, TOTAL	7.4		J	P	1	0.59	0.03	0.35
7440-41-7	BERYLLIUM, TOTAL	0.05	I	J	P	1	0.59	0.008	0.059
7440-43-9	CADMIUM, TOTAL	0.70	I		P	1	1.2	0.009	0.35
7440-70-2	CALCIUM, TOTAL	3420	B	J	P	1	12	2.10	9.4
7440-47-3	CHROMIUM, TOTAL	4.7			P	1	1.8	0.03	0.47
7440-48-4	COBALT, TOTAL	0.21	I		P	1	3.5	0.03	0.47
7440-50-8	COPPER, TOTAL	4.1			P	1	3.0	0.18	1.2
7439-89-6	IRON, TOTAL	615		J	P	1	12	1.68	9.4
7439-92-1	LEAD, TOTAL	22.5			P	1	0.59	0.10	0.47
7439-95-4	MAGNESIUM, TOTAL	117		J	P	1	12	0.80	9.4
7439-96-5	MANGANESE, TOTAL	9.8		J	P	1	0.59	0.19	0.47
7439-97-6	MERCURY, TOTAL	0.02	I		CV	1	0.046	0.007	0.024
7440-02-0	NICKEL, TOTAL	1.3	I	J	P	1	4.7	0.05	0.47
7440-09-7	POTASSIUM, TOTAL	56.6	I		P	1	120	3.43	59
7782-49-2	SELENIUM, TOTAL	0.20	U		P	1	1.2	0.20	0.83
7440-22-4	SILVER, TOTAL	0.03	U		P	1	1.8	0.03	0.47
7440-23-5	SODIUM, TOTAL	30.9	I	J	P	1	120	1.74	59
7440-28-0	THALLIUM, TOTAL	0.10	U		P	1	1.8	0.10	0.59
7440-62-2	VANADIUM, TOTAL	2.1	I		P	1	3.0	0.04	0.47
7440-66-6	ZINC, TOTAL	24.8			P	1	3.0	0.20	1.2

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 45-SB06-SB-06242011

Matrix: SOIL **SDG Name:** JAX04

Percent Solids: 85.7 **Lab Sample ID:** SE3674-006

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	2730		J	P	1	26	0.62	8.8
7440-36-0	ANTIMONY, TOTAL	0.06	U	J	P	1	0.70	0.06	0.44
7440-38-2	ARSENIC, TOTAL	0.64	I		P	1	0.70	0.06	0.44
7440-39-3	BARIUM, TOTAL	6.3		J	P	1	0.44	0.02	0.26
7440-41-7	BERYLLIUM, TOTAL	0.06	I	J	P	1	0.44	0.006	0.044
7440-43-9	CADMIUM, TOTAL	0.37	I		P	1	0.88	0.007	0.26
7440-70-2	CALCIUM, TOTAL	1630	B	J	P	1	8.8	1.56	7.0
7440-47-3	CHROMIUM, TOTAL	3.4			P	1	1.3	0.02	0.35
7440-48-4	COBALT, TOTAL	0.13	I		P	1	2.6	0.03	0.35
7440-50-8	COPPER, TOTAL	3.2			P	1	2.2	0.14	0.88
7439-89-6	IRON, TOTAL	1040		J	P	1	8.8	1.24	7.0
7439-92-1	LEAD, TOTAL	14.0			P	1	0.44	0.08	0.35
7439-95-4	MAGNESIUM, TOTAL	136		J	P	1	8.8	0.59	7.0
7439-96-5	MANGANESE, TOTAL	14.2		J	P	1	0.44	0.14	0.35
7439-97-6	MERCURY, TOTAL	0.02	I		CV	1	0.039	0.006	0.020
7440-02-0	NICKEL, TOTAL	1.1	I	J	P	1	3.5	0.04	0.35
7440-09-7	POTASSIUM, TOTAL	74.0	I		P	1	88	2.54	44
7782-49-2	SELENIUM, TOTAL	0.15	U		P	1	0.88	0.15	0.61
7440-22-4	SILVER, TOTAL	0.02	U		P	1	1.3	0.02	0.35
7440-23-5	SODIUM, TOTAL	37.1	I	J	P	1	88	1.29	44
7440-28-0	THALLIUM, TOTAL	0.08	U		P	1	1.3	0.08	0.44
7440-62-2	VANADIUM, TOTAL	3.0			P	1	2.2	0.03	0.35
7440-66-6	ZINC, TOTAL	24.7			P	1	2.2	0.15	0.88

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: 45-SB07-SB-06242011
Matrix: SOIL
SDG Name: JAX04
Percent Solids: 82.2
Lab Sample ID: SE3674-007

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	2430		J	P	1	26	0.62	8.7
7440-36-0	ANTIMONY, TOTAL	0.06	U	J	P	1	0.70	0.06	0.43
7440-38-2	ARSENIC, TOTAL	0.66	I		P	1	0.70	0.06	0.43
7440-39-3	BARIUM, TOTAL	8.5		J	P	1	0.43	0.02	0.26
7440-41-7	BERYLLIUM, TOTAL	0.09	I	J	P	1	0.43	0.006	0.043
7440-43-9	CADMIUM, TOTAL	0.78	I		P	1	0.87	0.007	0.26
7440-70-2	CALCIUM, TOTAL	11400	B	J	P	1	8.7	1.55	7.0
7440-47-3	CHROMIUM, TOTAL	6.7			P	1	1.3	0.02	0.35
7440-48-4	COBALT, TOTAL	0.29	I		P	1	2.6	0.03	0.35
7440-50-8	COPPER, TOTAL	7.2			P	1	2.2	0.14	0.87
7439-89-6	IRON, TOTAL	1470		J	P	1	8.7	1.23	7.0
7439-92-1	LEAD, TOTAL	47.9			P	1	0.43	0.08	0.35
7439-95-4	MAGNESIUM, TOTAL	200		J	P	1	8.7	0.59	7.0
7439-96-5	MANGANESE, TOTAL	25.6		J	P	1	0.43	0.14	0.35
7439-97-6	MERCURY, TOTAL	0.02	I		CV	1	0.039	0.006	0.020
7440-02-0	NICKEL, TOTAL	1.5	I	J	P	1	3.5	0.04	0.35
7440-09-7	POTASSIUM, TOTAL	100			P	1	87	2.52	43
7782-49-2	SELENIUM, TOTAL	0.15	U		P	1	0.87	0.15	0.61
7440-22-4	SILVER, TOTAL	0.03	I		P	1	1.3	0.02	0.35
7440-23-5	SODIUM, TOTAL	36.1	I	J	P	1	87	1.28	43
7440-28-0	THALLIUM, TOTAL	0.07	U		P	1	1.3	0.07	0.43
7440-62-2	VANADIUM, TOTAL	4.0			P	1	2.2	0.03	0.35
7440-66-6	ZINC, TOTAL	31.4			P	1	2.2	0.15	0.87

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: 45-SB08-SB-06242011
Matrix: SOIL
SDG Name: JAX04
Percent Solids: 94.8
Lab Sample ID: SE3674-008

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	209		J	P	1	28	0.66	9.2
7440-36-0	ANTIMONY, TOTAL	0.06	U	J	P	1	0.74	0.06	0.46
7440-38-2	ARSENIC, TOTAL	0.56	I		P	1	0.74	0.06	0.46
7440-39-3	BARIUM, TOTAL	4.8		J	P	1	0.46	0.02	0.28
7440-41-7	BERYLLIUM, TOTAL	0.02	I	J	P	1	0.46	0.006	0.046
7440-43-9	CADMIUM, TOTAL	0.05	I		P	1	0.92	0.007	0.28
7440-70-2	CALCIUM, TOTAL	766	B	J	P	1	9.2	1.65	7.4
7440-47-3	CHROMIUM, TOTAL	0.64	I		P	1	1.4	0.02	0.37
7440-48-4	COBALT, TOTAL	0.03	U		P	1	2.8	0.03	0.37
7440-50-8	COPPER, TOTAL	1.8	I		P	1	2.3	0.14	0.92
7439-89-6	IRON, TOTAL	193		J	P	1	9.2	1.31	7.4
7439-92-1	LEAD, TOTAL	4.9			P	1	0.46	0.08	0.37
7439-95-4	MAGNESIUM, TOTAL	26.0		J	P	1	9.2	0.63	7.4
7439-96-5	MANGANESE, TOTAL	6.7		J	P	1	0.46	0.15	0.37
7439-97-6	MERCURY, TOTAL	0.02	I		CV	1	0.032	0.005	0.016
7440-02-0	NICKEL, TOTAL	0.12	I	J	P	1	3.7	0.04	0.37
7440-09-7	POTASSIUM, TOTAL	19.3	I		P	1	92	2.68	46
7782-49-2	SELENIUM, TOTAL	0.16	U		P	1	0.92	0.16	0.65
7440-22-4	SILVER, TOTAL	0.02	U		P	1	1.4	0.02	0.37
7440-23-5	SODIUM, TOTAL	19.5	I	J	P	1	92	1.37	46
7440-28-0	THALLIUM, TOTAL	0.08	U		P	1	1.4	0.08	0.46
7440-62-2	VANADIUM, TOTAL	0.81	I		P	1	2.3	0.03	0.37
7440-66-6	ZINC, TOTAL	1.7	I		P	1	2.3	0.16	0.92

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 45-SB09-SB-06242011

Matrix: SOIL **SDG Name:** JAX04

Percent Solids: 85.8 **Lab Sample ID:** SE3674-009

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	3770		J	P	1	30	0.70	9.9
7440-36-0	ANTIMONY, TOTAL	0.07	U	J	P	1	0.79	0.07	0.49
7440-38-2	ARSENIC, TOTAL	0.82			P	1	0.79	0.07	0.49
7440-39-3	BARIUM, TOTAL	7.9		J	P	1	0.49	0.02	0.30
7440-41-7	BERYLLIUM, TOTAL	0.07	I	J	P	1	0.49	0.007	0.049
7440-43-9	CADMIUM, TOTAL	0.06	I		P	1	0.99	0.008	0.30
7440-70-2	CALCIUM, TOTAL	16000	B	J	P	1	9.9	1.76	7.9
7440-47-3	CHROMIUM, TOTAL	4.1			P	1	1.5	0.03	0.40
7440-48-4	COBALT, TOTAL	0.18	I		P	1	3.0	0.03	0.40
7440-50-8	COPPER, TOTAL	4.1			P	1	2.5	0.15	0.99
7439-89-6	IRON, TOTAL	1010		J	P	1	9.9	1.40	7.9
7439-92-1	LEAD, TOTAL	5.4			P	1	0.49	0.09	0.40
7439-95-4	MAGNESIUM, TOTAL	274		J	P	1	9.9	0.67	7.9
7439-96-5	MANGANESE, TOTAL	10.7		J	P	1	0.49	0.16	0.40
7439-97-6	MERCURY, TOTAL	0.02	I		CV	1	0.037	0.006	0.019
7440-02-0	NICKEL, TOTAL	1.0	I	J	P	1	4.0	0.04	0.40
7440-09-7	POTASSIUM, TOTAL	124			P	1	99	2.86	49
7782-49-2	SELENIUM, TOTAL	0.17	U		P	1	0.99	0.17	0.69
7440-22-4	SILVER, TOTAL	0.03	U		P	1	1.5	0.03	0.40
7440-23-5	SODIUM, TOTAL	32.4	I	J	P	1	99	1.46	49
7440-28-0	THALLIUM, TOTAL	0.08	U		P	1	1.5	0.08	0.49
7440-62-2	VANADIUM, TOTAL	4.4			P	1	2.5	0.04	0.40
7440-66-6	ZINC, TOTAL	14.9			P	1	2.5	0.17	0.99

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: 45-SB10-SB-06242011
Matrix: SOIL
SDG Name: JAX04
Percent Solids: 82.3
Lab Sample ID: SE3674-010

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	2060		J	P	1	26	0.62	8.7
7440-36-0	ANTIMONY, TOTAL	0.06	U	J	P	1	0.69	0.06	0.43
7440-38-2	ARSENIC, TOTAL	0.74			P	1	0.69	0.06	0.43
7440-39-3	BARIUM, TOTAL	4.8		J	P	1	0.43	0.02	0.26
7440-41-7	BERYLLIUM, TOTAL	0.03	I	J	P	1	0.43	0.006	0.043
7440-43-9	CADMIUM, TOTAL	0.05	I		P	1	0.87	0.007	0.26
7440-70-2	CALCIUM, TOTAL	5870	B	J	P	1	8.7	1.55	6.9
7440-47-3	CHROMIUM, TOTAL	2.6			P	1	1.3	0.02	0.35
7440-48-4	COBALT, TOTAL	0.08	I		P	1	2.6	0.03	0.35
7440-50-8	COPPER, TOTAL	1.8	I		P	1	2.2	0.14	0.87
7439-89-6	IRON, TOTAL	396		J	P	1	8.7	1.23	6.9
7439-92-1	LEAD, TOTAL	3.2			P	1	0.43	0.08	0.35
7439-95-4	MAGNESIUM, TOTAL	128		J	P	1	8.7	0.59	6.9
7439-96-5	MANGANESE, TOTAL	6.8		J	P	1	0.43	0.14	0.35
7439-97-6	MERCURY, TOTAL	0.02	I		CV	1	0.040	0.006	0.021
7440-02-0	NICKEL, TOTAL	0.74	I	J	P	1	3.5	0.04	0.35
7440-09-7	POTASSIUM, TOTAL	58.8	I		P	1	87	2.52	43
7782-49-2	SELENIUM, TOTAL	0.15	U		P	1	0.87	0.15	0.61
7440-22-4	SILVER, TOTAL	0.02	U		P	1	1.3	0.02	0.35
7440-23-5	SODIUM, TOTAL	25.9	I	J	P	1	87	1.28	43
7440-28-0	THALLIUM, TOTAL	0.07	U		P	1	1.3	0.07	0.43
7440-62-2	VANADIUM, TOTAL	2.1	I		P	1	2.2	0.03	0.35
7440-66-6	ZINC, TOTAL	6.6			P	1	2.2	0.15	0.87

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 45-SB11-SB-06242011

Matrix: SOIL **SDG Name:** JAX04

Percent Solids: 83.4 **Lab Sample ID:** SE3674-011

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7429-90-5	ALUMINUM, TOTAL	2690		J	P	1	29	0.69	9.7
7440-36-0	ANTIMONY, TOTAL	0.15	I	J	P	1	0.78	0.07	0.49
7440-38-2	ARSENIC, TOTAL	0.59	I		P	1	0.78	0.07	0.49
7440-39-3	BARIUM, TOTAL	10.4		J	P	1	0.49	0.02	0.29
7440-41-7	BERYLLIUM, TOTAL	0.12	I	J	P	1	0.49	0.007	0.049
7440-43-9	CADMIUM, TOTAL	0.26	I		P	1	0.97	0.008	0.29
7440-70-2	CALCIUM, TOTAL	61000	B	J	P	1	9.7	1.73	7.8
7440-47-3	CHROMIUM, TOTAL	5.5			P	1	1.5	0.03	0.39
7440-48-4	COBALT, TOTAL	0.35	I		P	1	2.9	0.03	0.39
7440-50-8	COPPER, TOTAL	3.9			P	1	2.4	0.15	0.97
7439-89-6	IRON, TOTAL	710		J	P	1	9.7	1.38	7.8
7439-92-1	LEAD, TOTAL	9.3			P	1	0.49	0.08	0.39
7439-95-4	MAGNESIUM, TOTAL	743		J	P	1	9.7	0.66	7.8
7439-96-5	MANGANESE, TOTAL	23.0		J	P	1	0.49	0.16	0.39
7439-97-6	MERCURY, TOTAL	0.02	I		CV	1	0.036	0.005	0.018
7440-02-0	NICKEL, TOTAL	1.7	I	J	P	1	3.9	0.04	0.39
7440-09-7	POTASSIUM, TOTAL	137			P	1	97	2.83	49
7782-49-2	SELENIUM, TOTAL	0.17	U		P	1	0.97	0.17	0.68
7440-22-4	SILVER, TOTAL	0.03	U		P	1	1.5	0.03	0.39
7440-23-5	SODIUM, TOTAL	55.5	I	J	P	1	97	1.44	49
7440-28-0	THALLIUM, TOTAL	0.08	U		P	1	1.5	0.08	0.49
7440-62-2	VANADIUM, TOTAL	7.0			P	1	2.4	0.04	0.39
7440-66-6	ZINC, TOTAL	21.2			P	1	2.4	0.16	0.97

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: 45-SB12-SB-06242011
Matrix: SOIL
SDG Name: JAX04
Percent Solids: 93.0
Lab Sample ID: SE3674-012

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7429-90-5	ALUMINUM, TOTAL	1730		J	P	1	32	0.76	11
7440-36-0	ANTIMONY, TOTAL	0.08	I	J	P	1	0.85	0.07	0.53
7440-38-2	ARSENIC, TOTAL	0.81	I		P	1	0.85	0.07	0.53
7440-39-3	BARIUM, TOTAL	19.2		J	P	1	0.53	0.03	0.32
7440-41-7	BERYLLIUM, TOTAL	0.15	I	J	P	1	0.53	0.007	0.053
7440-43-9	CADMIUM, TOTAL	15.8			P	1	1.1	0.009	0.32
7440-70-2	CALCIUM, TOTAL	8340	B	J	P	1	11	1.89	8.5
7440-47-3	CHROMIUM, TOTAL	28.9			P	1	1.6	0.03	0.42
7440-48-4	COBALT, TOTAL	1.3	I		P	1	3.2	0.03	0.42
7440-50-8	COPPER, TOTAL	24.4			P	1	2.7	0.17	1.1
7439-89-6	IRON, TOTAL	2320		J	P	1	11	1.51	8.5
7439-92-1	LEAD, TOTAL	136			P	1	0.53	0.09	0.42
7439-95-4	MAGNESIUM, TOTAL	451		J	P	1	11	0.72	8.5
7439-96-5	MANGANESE, TOTAL	70.7		J	P	1	0.53	0.17	0.42
7439-97-6	MERCURY, TOTAL	0.07			CV	1	0.035	0.005	0.018
7440-02-0	NICKEL, TOTAL	3.9	I	J	P	1	4.2	0.05	0.42
7440-09-7	POTASSIUM, TOTAL	100	I		P	1	110	3.09	53
7782-49-2	SELENIUM, TOTAL	0.18	U		P	1	1.1	0.18	0.74
7440-22-4	SILVER, TOTAL	0.08	I		P	1	1.6	0.03	0.42
7440-23-5	SODIUM, TOTAL	27.2	I	J	P	1	110	1.57	53
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.6	0.09	0.53
7440-62-2	VANADIUM, TOTAL	10.0			P	1	2.7	0.04	0.42
7440-66-6	ZINC, TOTAL	623			P	1	2.7	0.18	1.1

Bottle ID: F

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 45-SB13-SB-06242011

Matrix: SOIL **SDG Name:** JAX04

Percent Solids: 79.6 **Lab Sample ID:** SE3674-014

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	ADJUSTED MDL	ADJUSTED LOD
7429-90-5	ALUMINUM, TOTAL	4000		J	P	1	24	0.56	7.8
7440-36-0	ANTIMONY, TOTAL	0.08	I	J	P	1	0.63	0.05	0.39
7440-38-2	ARSENIC, TOTAL	0.58	I		P	1	0.63	0.05	0.39
7440-39-3	BARIUM, TOTAL	11.0		J	P	1	0.39	0.02	0.24
7440-41-7	BERYLLIUM, TOTAL	0.09	I	J	P	1	0.39	0.005	0.039
7440-43-9	CADMIUM, TOTAL	1.2			P	1	0.78	0.006	0.24
7440-70-2	CALCIUM, TOTAL	6550	B	J	P	1	7.8	1.40	6.3
7440-47-3	CHROMIUM, TOTAL	6.7			P	1	1.2	0.02	0.31
7440-48-4	COBALT, TOTAL	0.39	I		P	1	2.4	0.02	0.31
7440-50-8	COPPER, TOTAL	5.2			P	1	2.0	0.12	0.78
7439-89-6	IRON, TOTAL	1010		J	P	1	7.8	1.11	6.3
7439-92-1	LEAD, TOTAL	30.4			P	1	0.39	0.07	0.31
7439-95-4	MAGNESIUM, TOTAL	232		J	P	1	7.8	0.53	6.3
7439-96-5	MANGANESE, TOTAL	17.9		J	P	1	0.39	0.13	0.31
7439-97-6	MERCURY, TOTAL	0.03	I		CV	1	0.039	0.006	0.020
7440-02-0	NICKEL, TOTAL	1.9	I	J	P	1	3.1	0.03	0.31
7440-09-7	POTASSIUM, TOTAL	101			P	1	78	2.28	39
7782-49-2	SELENIUM, TOTAL	0.13	U		P	1	0.78	0.13	0.55
7440-22-4	SILVER, TOTAL	0.03	I		P	1	1.2	0.02	0.31
7440-23-5	SODIUM, TOTAL	30.5	I	J	P	1	78	1.16	39
7440-28-0	THALLIUM, TOTAL	0.07	U		P	1	1.2	0.07	0.39
7440-62-2	VANADIUM, TOTAL	3.9			P	1	2.0	0.03	0.31
7440-66-6	ZINC, TOTAL	42.3			P	1	2.0	0.13	0.78

Bottle ID: P

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: 45-SB14-SB-06242011
Matrix: SOIL
SDG Name: JAX04
Percent Solids: 86.0
Lab Sample ID: SE3674-015

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	ADJUSTED LOQ	MDL	LOD
7429-90-5	ALUMINUM, TOTAL	4070		J	P	1	31	0.74	10
7440-36-0	ANTIMONY, TOTAL	0.07	U	J	P	1	0.84	0.07	0.52
7440-38-2	ARSENIC, TOTAL	0.80	I		P	1	0.84	0.07	0.52
7440-39-3	BARIUM, TOTAL	7.2		J	P	1	0.52	0.03	0.31
7440-41-7	BERYLLIUM, TOTAL	0.06	I	J	P	1	0.52	0.007	0.052
7440-43-9	CADMIUM, TOTAL	0.14	I		P	1	1.0	0.008	0.31
7440-70-2	CALCIUM, TOTAL	987	B	J	P	1	10	1.86	8.4
7440-47-3	CHROMIUM, TOTAL	4.5			P	1	1.6	0.03	0.42
7440-48-4	COBALT, TOTAL	0.17	I		P	1	3.1	0.03	0.42
7440-50-8	COPPER, TOTAL	4.2			P	1	2.6	0.16	1.0
7439-89-6	IRON, TOTAL	1860		J	P	1	10	1.49	8.4
7439-92-1	LEAD, TOTAL	9.6			P	1	0.52	0.09	0.42
7439-95-4	MAGNESIUM, TOTAL	160		J	P	1	10	0.71	8.4
7439-96-5	MANGANESE, TOTAL	13.8		J	P	1	0.52	0.17	0.42
7439-97-6	MERCURY, TOTAL	0.04			CV	1	0.033	0.005	0.017
7440-02-0	NICKEL, TOTAL	1.2	I	J	P	1	4.2	0.05	0.42
7440-09-7	POTASSIUM, TOTAL	90.1	I		P	1	100	3.04	52
7782-49-2	SELENIUM, TOTAL	0.18	U		P	1	1.0	0.18	0.73
7440-22-4	SILVER, TOTAL	0.07	I		P	1	1.6	0.03	0.42
7440-23-5	SODIUM, TOTAL	30.2	I	J	P	1	100	1.55	52
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.6	0.09	0.52
7440-62-2	VANADIUM, TOTAL	5.3			P	1	2.6	0.04	0.42
7440-66-6	ZINC, TOTAL	12.9			P	1	2.6	0.18	1.0

Bottle ID: F

Comments:

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-5
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB05-SB-06242011	SL	23-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	72. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:34:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-6
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB06-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	86. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:35:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-7
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB07-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	82. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:36:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-8
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB08-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	95. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:37:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-9
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB09-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	86. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:38:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-10
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB10-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	82. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:39:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-11
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB11-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	83. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:40:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-12
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB12-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	93. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:41:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-13
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
AX45-DUP01-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	93. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:42:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-14
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB13-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	80. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:43:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-15
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
45-SB14-SB-06242011	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	86. %	1	N/A	SM2540G	WG93470	30-JUN-11 09:45:00	ASTM D2216	29-JUN-11	

Report of Analytical Results

Client: Tobrena Sedlmyer
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: SE3674-17
Report Date: 12-JUL-11
Client PO: 1063749 112G01511 N6
Project: NAS JAX
SDG: JAX04

Sample Description	Matrix	Date Sampled	Date Received
TB-03	SL	24-JUN-11	25-JUN-11

Parameter	Result	Adj LOQ	Adj LOD	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Footnotes
Total Solids	100 %	1	N/A	SM2540G	WG93470	30-JUN-11 09:46:00	ASTM D2216	29-JUN-11	

Appendix C

Support Documentation

HOLDTIME

SDG JAX03

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	JAX45-SB14-SB-0624201	SE3674-015	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-DUP01-06242011	SE3674-013	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB12-SB-0624201	SE3674-012	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB11-SB-0624201	SE3674-011	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB10-SB-0624201	SE3674-010	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB09-SB-0624201	SE3674-009	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB08-SB-0624201	SE3674-008	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB07-SB-0624201	SE3674-007	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB06-SB-0624201	SE3674-006	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
HG	MG/KG	JAX45-SB05-SB-0624201	SE3674-005	NM	06/23/2011	06/29/2011	06/30/2011	6	1	7
HG	MG/KG	JAX45-SB13-SB-0624201	SE3674-014	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
M	MG/KG	JAX45-SB05-SB-0624201	SE3674-005	NM	06/23/2011	06/27/2011	06/27/2011	4	0	4
M	MG/KG	JAX45-SB11-SB-0624201	SE3674-011	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB06-SB-0624201	SE3674-006	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB07-SB-0624201	SE3674-007	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	JAX45-SB08-SB-0624201	SE3674-008	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB09-SB-0624201	SE3674-009	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB10-SB-0624201	SE3674-010	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB12-SB-0624201	SE3674-012	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB14-SB-0624201	SE3674-015	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-DUP01-06242011	SE3674-013	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
M	MG/KG	JAX45-SB13-SB-0624201	SE3674-014	NM	06/24/2011	06/27/2011	06/27/2011	3	0	3
TS	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-DUP01-06242011	SE3674-13	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	TB-03	SE3674-17	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB08-SB-0624201	SE3674-8	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
TS	%	JAX45-SB05-SB-0624201	SE3674-5	NM	06/23/2011	06/29/2011	06/30/2011	6	1	7

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TS	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/29/2011	06/30/2011	5	1	6
OS	%	JAX45-SB12-SB-0624201	SE3674-12	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB10-SB-0624201	SE3674-10	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB11-SB-0624201	SE3674-11	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB11-SB-0624201	SE3674-11	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB12-SB-0624201	SE3674-12	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB13-SB-0624201	SE3674-14	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB13-SB-0624201	SE3674-14	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB10-SB-0624201	SE3674-10	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB14-SB-0624201	SE3674-15	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB07-SB-0624201	SE3674-7	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB14-SB-0624201	SE3674-15	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB09-SB-0624201	SE3674-9	SUR	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB09-SB-0624201	SE3674-9	NM	06/24/2011	06/27/2011	06/30/2011	3	3	6
OS	%	JAX45-SB08-SB-0624201	SE3674-8	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB07-SB-0624201	SE3674-7	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB06-SB-0624201	SE3674-6	SUR	06/24/2011	06/27/2011	06/29/2011	3	2	5
OS	%	JAX45-SB06-SB-0624201	SE3674-6	NM	06/24/2011	06/27/2011	06/29/2011	3	2	5

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2269 | PAGE 1 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN SERVICE ANALYTICAL SERVICES INC
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		ZACH SCRIBNER	(904) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE
				SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

SE3674

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS							COMMENTS
									G	HCl	VOC's (GC)							
									G	DI	VOC's (SOIL)							
									G	MeOH	VOC's (SOIL)							
									G	/	PCB/PAH/SVOCs (8270)							
									G	/	TCLP	(40ml)						
									G	/	METALS	(4oz)						
6/23	1010	~~DP~~JAX45-DPT22-60-06232011				GW	G	3			3							
6/23	1025	JAX45-DPT22-40-06232011				GW	G	3			3							
6/23	1040	JAX45-DPT22-20-06232011				GW	G	3			3							
6/23	1055	JAX45-DPT22-12-06232011				GW	G	3			3							
6/24	0840	JAX45-SB05-SB-06242011				SOIL	G	7			X	3	1	1	1	1		Cool to 4°C
6/24	0855	JAX45-SB06-SB06242011						7			X	3	1	1	1	1		
	0910	JAX45-SB07-SB06242011						7			X	3	1	1	1	1		
	0930	JAX45-SB08-SB-06242011						7			X	3	1	1	1	1		
	0955	JAX45-SB09-SB-06242011						7			X	3	1	1	1	1		
	1020	JAX45 SB10-SB-06242011						7			X	3	1	1	1	1		
	1035	JAX45-SB11SB-06242011						7			X	3	1	1	1	1		
	1055	JAX45-SB12SB-06242011						7			X	3	1	1	1	1		
	0000	JAX45-DUP01-06242011						7			X	3	1	1	1	1		

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/24/2011	1530	1. RECEIVED BY	6/25/11	1000
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

0000013

TETRA TECH NUS, INC. | CHAIN OF CUSTODY | NUMBER 2270 | PAGE 2 OF 2

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G01511	NAS JAX	ALAN PATE	(904) 636-6125	KATAHDIN ANALYTICAL SERVICES INC
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		ZACH SCRIBNER	(904) 636-6125	600 TECHNOLOGY WAY
		CARRIER/WAYBILL NUMBER		CITY, STATE
				SCARBOROUGH, ME 04074

STANDARD TAT ☐
RUSH TAT ☒
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☒ 7 day ☐ 14 day

SE3674

DATE YEAR 2011	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)								COMMENTS
									PRESERVATIVE USED	DI	MEOH	—	—	—	—	HCl	
									TYPE OF ANALYSIS	VOC	VOC	PCB/PAH/SVOC (8oz)	TRPH (4oz)	METALS (4oz)	VOC (40ml)		
6/24	1125	JAX45-SB13-SB-06242011	(*)			Soil	G	21		9	3	3	3	3			(*) - INDICATES MS/MSD — COOL TO 4°C
6/24	1155	JAX45-SB14-SB-06242011				Soil	G	7		3	1	1	1	1			
6/24	1205	JAX45-SBRINSATE-06242011				QC	G	3		0	0	0	0	0	3		
6/24	1210	TB-03				QC	—	4		3	1	0	0	0	0		
6/24	1215	TB-04				QC	—	2		0	0	0	0	0	2		

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	6/24/2011	1530	1. RECEIVED BY	6/25/11	1100
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TINUS-001

fl0000

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
TETRA TECH NUS
CASE NAS JAX
SDG: JAX04
SE3674

Sample Receipt

The following samples were received on June 25, 2011 and were logged in under Katahdin Analytical Services work order number SE3674 for a hardcopy due date of July 13, 2011.

KATAHDIN Sample No.	TTNUS Sample Identification
SE3674-1	5-DPT22-60-06232011
SE3674-2	5-DPT22-40-06232011
SE3674-3	5-DPT22-20-06232011
SE3674-4	5-DPT22-12-06232011
SE3674-5	45-SB05-SB-06242011
SE3674-6	45-SB06-SB-06242011
SE3674-7	45-SB07-SB-06242011
SE3674-8	45-SB08-SB-06242011
SE3674-9	45-SB09-SB-06242011
SE3674-10	45-SB10-SB-06242011
SE3674-11	45-SB11-SB-06242011
SE3674-12	45-SB12-SB-06242011
SE3674-13	AX45-DUP01-06242011
SE3674-14	45-SB13-SB-06242011
SE3674-15	45-SB14-SB-06242011
SE3674-16	-SBRINSATE-06242011
SE3674-17	TB-03
SE3674-18	TB-04

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

The client IDs on the Chain of Custody exceeds the 19-character limit of the Katahdin Analytical Information Management System. Therefore, the first characters "JAX4" in the client IDs for SE3674-1 through -4 were omitted on all forms. In addition, the first characters "JAX" in the client IDs for SE3674-5 through SE3674-12 and SE3674-14 through SE3674-15 were omitted on all forms. Also, the first character "J" in the client ID for SE3674-13 was omitted on all forms and "JAX45" in the client ID for SE3674-16 was omitted on all forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Ms. Kelly Perkins**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of SDG JAX04 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, and III 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA, and/or for the specific methods listed below or on the Report of Analysis.

Sample SE3674-14 was used for the matrix spike (MS) and matrix spike duplicate (MSD), as requested by the client.

8270D SCAN Analysis

All soil samples and associated QC were subjected to the GPC sample clean-up process.

Surrogate recoveries for all samples and QC were evaluated using laboratory-established acceptance limits.

The laboratory control sample (LCS) WG93321-2 had a high response for the internal standard chrysene-d12 that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. Since spike recoveries were acceptable and the associated LCSD was acceptable, the LCS was not reanalyzed.

The analyte benzaldehyde is an EPA CLP compound that is very sensitive to the condition of the injection port of the GC/MS instrument. Consequently, the response of this analyte may fluctuate from one analysis to another which may result in high %RSD's for initial calibrations, high %D's for CV's, and low or high recoveries for LCS's.

The independent check standard (file U6269D) associated with the initial calibration on 06/27/11 had low concentrations for the target analytes benzaldehyde and atrazine, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The CV (file U6270D) had a high response for the analyte 2,2'-oxybis(1-chloropropane). The CV (file U6287D) had high responses for the analytes 2,2'-oxybis(1-chloropropane) and N-nitroso-di-n-propylamine and a low response for benzaldehyde. These responses resulted in %D's that were greater than the acceptance limit of 20% from DoD QSM Version 4.1.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are nominal limits for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable. Nominal limits are used for the LCS/LCSD until enough data is collected to generate statistically based acceptance limits.

8270D SIM Analysis

All soil samples and associated QC were subjected to the GPC sample clean-up process.

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

Samples SE3674-5, 7, 8, 9, 9RA, 10, 11, 12, 13, 13DL, 14 and 15 were manually integrated for the analytes acenaphthylene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene and/or benzo(g,h,i)perylene. The specific reason for the manual integration is indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Sample SE3674-9 had a high response for one internal standard that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. The sample was reanalyzed and had a high response for the same internal standard that confirmed matrix interference. Results for both analyses are reported.

Sample SE3674-11 had a high response for one internal standard that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. The sample was reanalyzed at a dilution and had acceptable internal standard responses. Therefore, the sample was not reanalyzed undiluted.

The independent check standard (file G1621) associated with the initial calibration on 06/28/11 had a low concentration for the target analyte indeno(1,2,3-cd)pyrene, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.
The CV (file G1622) had a low response for indeno(1,2,3-cd)pyrene. The CV (file G1640) had low responses for pyrene, benzo(a)anthracene and indeno(1,2,3-cd)pyrene. These responses resulted in %D's that were greater than the acceptance limit of 20% from DoD QSM Version 4.1.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are nominal limits for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM

allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable. Nominal limits are used for the LCS/LCSD until enough data is collected to generate statistically based acceptance limits.

The LCSD WG93366-3 had four spiked target analytes with recoveries that were low and outside of the laboratory nominal acceptance limits. This LCSD also had a high response for one internal standard that resulted in a %D which was outside the DoD QSM 4.1 acceptance limit of -50% to +100% of the responses of the internal standards of the midpoint initial calibration standard. The DoD QSM allowable number of exceedances for 17 target analytes is one analyte. Since the LCS WG93366-2 was acceptable, after factoring in the allowable number of exceedances, no further action was taken.

The MS WG93366-4 had seven spiked target analytes with recoveries that were non-calculable and reported as 0% recovery due to the concentration in the native sample being higher than in the MS. This is likely due to a non-homogeneous sample.

FL-PRO Analysis

Surrogate recoveries for all samples and QC were evaluated using the method acceptance limits for the surrogate o-terphenyl and laboratory nominal acceptance limit for the surrogate n-Triacontance-D_{62}.

The spike recoveries for the laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were evaluated using the method acceptance limits.

All samples in the SDG were manually integrated for the target range PRO, the extraction surrogates o-terphenyl and/or n-Triacontance-D_{62}. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Samples SE3674-7 and 12 had high recoveries for the extraction surrogate o-terphenyl that were outside of the method acceptance limits. Since the second surrogate was acceptable, the samples were not reextracted.

The LCS/LCSD WG93375-2 and 3 and the MS/MSD WG93375-4 and 5 had low recoveries for the surrogate n-Triacontance-D_{62} that were outside of the nominal acceptance limits. Since the recoveries were acceptable for the second surrogate, no further action was taken.

The opening/closing calibration verification (CV) (file AEG2033) had a low response for the individual hydrocarbon C_{40}. This resulted in a %D that was greater than the DoD QSM limit of 20%. Since the method requirement applies to only the PRO range response, which was acceptable, the associated samples were not reanalyzed.

8082A Analysis

Surrogate recoveries for all samples and QC, as well as spike recoveries for the laboratory control samples and laboratory control sample duplicates (LCS/LCSDs) and MS/MSD, were evaluated using laboratory established acceptance limits.

The method blank WG93367-1 had low recoveries for the surrogate TCX on both channels, which were outside of the laboratory established acceptance limits. Since the recoveries for DCB were acceptable, the associated samples were not reextracted.

Samples SE3674-6, 8, 10 and the MS/MSD WG93367-4 and 5 had low recoveries for the surrogate TCX on channel A, which were outside of the laboratory established acceptance limits. Since the recoveries for DCB were acceptable, as well as the recovery for TCX on channel B, the samples were not reextracted.

Sample SE3674-5 had low recoveries for the surrogate TCX on both channels and a low recovery for the surrogate DCB on channel A, which were outside of the laboratory established acceptance limits. Since the recovery for DCB on channel B was acceptable, the sample was not reextracted.

Sample SE3674-5 was manually integrated for the surrogate TCX. The specific reason for the manual integration is indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The closing calibration verification standard (CV) (file 7EF522) had high responses for Aroclor 1016; Aroclor 1260 and the surrogate DCB on both channels, which resulted in %D's that were outside of the DoD QSM acceptance limits of ±20%. Since a high response would indicate a high bias and the associated samples did not have any target analytes detected above the MDL, the samples were not reanalyzed.

The opening CV (file 7EF542) had a low response for the surrogate TCX on channel A, which resulted in a %D that was outside of the DoD QSM acceptance limits of ±20%. Since the response was acceptable on channel B, the associated samples were not reanalyzed.

The opening CV (file 7EF562) had low response for Aroclor 1016 and the surrogate TCX on channel A, which resulted in %D's that were outside of the DoD QSM acceptance limits of ±20%. Since the responses were acceptable on channel B, the associated samples were not reanalyzed.

8260B Analysis

Surrogate recoveries for all samples and QC were evaluated using laboratory established acceptance limits.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD

QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

The initial calibration analyzed on the D instrument on 06/28/2011 had %RSD values for several analytes that exceeded the method acceptance limit of 15%. For these analytes, either a linear or quadratic model was used for quantitation instead of an average response factor. The target analyte acetone failed for both the linear and quadratic models in the initial calibration curve due to the correlation coefficient and the coefficient of determination being less than the method acceptance criteria of 0.995 and 0.990 respectively. This compound was calibrated using the average model. The corresponding independent check standard (file D1591) had high concentrations for the target analytes acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard is the same source as the LCS. Since the associated LCS WG93448-1 had recoveries for these analytes that were within the LCS acceptance limits, the associated samples were not reanalyzed. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The independent check standard (file C3754a), associated with the initial calibration on 06/28/11, had high concentrations for the target analytes acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL. The independent check standard is the same source as the LCS. There were two analytical batches associated with this initial calibration and the two LCS's WG93458-1 and WG93495-1 had acceptable LCS recoveries. Therefore, the associated samples were not reanalyzed. The Independent Check Report consists of the full list of spiked analytes, but only the client's list of target analytes are evaluated.

The calibration verification standard (CV) (file C3749) had a low response for the target analyte acetone, which resulted in a %D that was greater than the acceptance limit of 20% from DoD QSM Version 4.1.

The target analytes carbon disulfide and acetone were detected below ½ the reporting limit in the method blanks WG93458-2 and WG93495-2. According to the DoD QSM section D.1.1.1, a method blank is considered to be contaminated if the concentration of any target analyte in the blank exceeds ½ the reporting limit. Since the method blanks were acceptable, no further action was taken.

Samples SE3674-2, 3, 4, and 7 were manually integrated for the analytes chloromethane, acetone, and benzene. The specific reason for the manual integration is indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

The MS/MSD WG93458-3 and 4 were analyzed 20 minutes and 53 minutes outside of the 12-hour analytical shift. Due to analyst error, the problem was not noticed until the hold time had expired. The MS also had a recovery for one surrogate that was low and outside the laboratory established limits.

There were no other protocol deviations or observations noted by the organics laboratory staff.

Metals Analysis

The samples of SDG JAX04 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA.

Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Solid-matrix Katahdin Sample Numbers SE3674-(5-15) were digested for ICP analysis on 06/27/11 (QC Batch BF27ICS0) in accordance with USEPA Method 3010A. Katahdin Sample Number SE3674-15 was prepared in duplicate and with a matrix-spiked aliquot.
The measured calcium concentration (13.0 ug/L) of the preparation blank in this batch is above the laboratory's control limit (> ½ LOQ). Associated samples have been B-flagged in form 1 of the accompanying data package. However, because the measured calcium concentrations of all associated samples are greater than ten times that of the preparation blank, no corrective action was necessary.

ICP analyses of SDG JAX04 sample digestates were performed using a Thermo iCAP 6500 ICP spectrometer in accordance with USEPA Method 6010. All samples were analyzed within holding times and all analytical run QC criteria were met.

Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

Solid-matrix Katahdin Sample Numbers SE3674-(5-15) were digested for mercury analysis on 06/29/11 (QC Batch BF29HGS0) in accordance with USEPA Method 7471B. Katahdin Sample Number SE3674-15 was prepared in duplicate and with a matrix-spiked aliquot.

Mercury analyses of SDG JAX04 sample digestate was performed using a Cetac M6100 automated mercury analyzer in accordance with USEPA Method 7471B. All samples were analyzed within holding times and all analytical run QC criteria were met.

Matrix QC Summary

The measured recoveries of antimony, arsenic, and lead in the matrix-spiked aliquot of Katahdin Sample Number SE3674-14 are outside the project acceptance criteria (80% - 120% recovery of the added element, if the native concentration is less than four times the amount added).

The duplicate analysis of Katahdin Sample Number SE3674-14 is outside the laboratory's acceptance limit (<20% relative difference between duplicate aliquots) for aluminum, antimony, barium, beryllium, calcium, iron, magnesium, manganese, nickel, and sodium.

The serial dilution analysis of Katahdin Sample Number SE3674-14 is within the laboratory's acceptance limit (<10% relative percent difference, if the concentration in the original sample is greater than 50 times the LOQ) for all analytes.

The measured recoveries of all ICP analytes in a post-digestion spiked aliquot of Katahdin Sample Number SE3674-14 are within the laboratory's acceptance criteria (75% - 125% recovery of the added element).

Reporting of Metals Results

Analytical results for client samples have been reported down to the laboratory's method detection limits (MDLs) throughout the accompanying data package. These MDLs have been adjusted for each sample based on the sample amounts used in preparation and analysis. Results that fall between the MDL and the laboratory's limits of quantitation (LOQ) are flagged with "I" in the C-qualifier column, and the measured concentration appears in the concentration column. Results that are less than the MDL are flagged with "U" in the C-qualifier column, and the MDL is listed in the concentration column. These LOQ's, MDLs and LODs have been adjusted for each sample based on the sample amounts used in preparation and analysis.

Analytical results on Forms VA, VD, VII, and IX for client samples, matrix QC samples (duplicates and matrix spikes), and laboratory control samples have been reported down to the laboratory's method detection limits (MDLs). Analytical results that are below the MDLs are flagged with "U" in the C-qualifier column, and the measured concentration is listed in the concentration column.

Analytical results for instrument run QC samples (ICVs, ICBs, etc.) have been reported down to the laboratory's instrument detection limits (IDLs).

IDLs, LODs, MDLs, and LOQs are listed on Form 10 of the accompanying data package.

Wet Chemistry Analysis

The samples of SDG JAX04 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for total solids were performed according to "Annual Book of ASTM Standards", Method D2216-98 "Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass".

All analyses were performed within analytical holding times. All quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond
07/14/11

Leslie Dimond
Quality Assurance Officer

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: ICV

File: IBF27A Jun 27, 2011 15:15

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9924.00	99.2
ANTIMONY	400.0	392.80	98.2
ARSENIC	400.0	388.50	97.1
BARIUM	400.0	398.40	99.6
BERYLLIUM	400.0	403.80	101.0
CADMIUM	400.0	403.70	100.9
CALCIUM	10000.0	9883.00	98.8
CHROMIUM	400.0	402.70	100.7
COBALT	400.0	405.40	101.3
COPPER	400.0	399.10	99.8
IRON	10000.0	10010.00	100.1
LEAD	400.0	406.50	101.6
MAGNESIUM	10000.0	10140.00	101.4
MANGANESE	400.0	396.70	99.2
NICKEL	400.0	398.90	99.7
POTASSIUM	13600.0	13530.00	99.5
SELENIUM	400.0	396.40	99.1
SILVER	400.0	402.40	100.6
SODIUM	10000.0	9959.00	99.6
THALLIUM	400.0	409.00	102.3
VANADIUM	400.0	404.60	101.2
ZINC	400.0	404.70	101.2

SAMPLE: CCV

File: IBF27A Jun 27, 2011 15:38

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12550.00	100.4
ANTIMONY	500.0	499.70	99.9
ARSENIC	500.0	497.80	99.6
BARIUM	500.0	503.50	100.7
BERYLLIUM	500.0	501.20	100.2
CADMIUM	500.0	507.90	101.6
CALCIUM	12500.0	12630.00	101.0
CHROMIUM	500.0	502.10	100.4
COBALT	500.0	505.10	101.0
COPPER	500.0	500.90	100.2
IRON	12500.0	12560.00	100.5
LEAD	500.0	505.10	101.0
MAGNESIUM	12500.0	12880.00	103.0
MANGANESE	500.0	497.00	99.4
NICKEL	500.0	498.80	99.8
POTASSIUM	12500.0	12460.00	99.7
SELENIUM	500.0	495.90	99.2
SILVER	500.0	496.10	99.2
SODIUM	12500.0	12590.00	100.7
THALLIUM	500.0	510.70	102.1
VANADIUM	500.0	502.90	100.6
ZINC	500.0	500.50	100.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCV

File: IBF27A Jun 27, 2011 16:33

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12590.00	100.7
ANTIMONY	500.0	501.20	100.2
ARSENIC	500.0	499.30	99.9
BARIUM	500.0	508.60	101.7
BERYLLIUM	500.0	500.90	100.2
CADMIUM	500.0	516.70	103.3
CALCIUM	12500.0	12730.00	101.8
CHROMIUM	500.0	496.30	99.3
COBALT	500.0	503.10	100.6
COPPER	500.0	497.10	99.4
IRON	12500.0	12390.00	99.1
LEAD	500.0	497.50	99.5
MAGNESIUM	12500.0	13140.00	105.1
MANGANESE	500.0	486.10	97.2
NICKEL	500.0	487.50	97.5
POTASSIUM	12500.0	12810.00	102.5
SELENIUM	500.0	492.80	98.6
SILVER	500.0	482.80	96.6
SODIUM	12500.0	12830.00	102.6
THALLIUM	500.0	506.30	101.3
VANADIUM	500.0	503.90	100.8
ZINC	500.0	495.50	99.1

SAMPLE: CCV

File: IBF27A Jun 27, 2011 17:28

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12660.00	101.3
ANTIMONY	500.0	500.70	100.1
ARSENIC	500.0	497.90	99.6
BARIUM	500.0	507.20	101.4
BERYLLIUM	500.0	500.70	100.1
CADMIUM	500.0	519.60	103.9
CALCIUM	12500.0	12760.00	102.1
CHROMIUM	500.0	493.90	98.8
COBALT	500.0	498.80	99.8
COPPER	500.0	494.10	98.8
IRON	12500.0	12360.00	98.9
LEAD	500.0	492.90	98.6
MAGNESIUM	12500.0	13200.00	105.6
MANGANESE	500.0	482.10	96.4
NICKEL	500.0	479.10	95.8
POTASSIUM	12500.0	12540.00	100.3
SELENIUM	500.0	486.10	97.2
SILVER	500.0	478.10	95.6
SODIUM	12500.0	12800.00	102.4
THALLIUM	500.0	503.30	100.7
VANADIUM	500.0	507.10	101.4
ZINC	500.0	492.30	98.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCV

File: IBF27A Jun 27, 2011 18:23

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12880.00	103.0
ANTIMONY	500.0	506.20	101.2
ARSENIC	500.0	500.90	100.2
BARIUM	500.0	510.10	102.0
BERYLLIUM	500.0	504.80	101.0
CADMIUM	500.0	508.30	101.7
CALCIUM	12500.0	12430.00	99.4
CHROMIUM	500.0	497.70	99.5
COBALT	500.0	505.10	101.0
COPPER	500.0	505.50	101.1
IRON	12500.0	12450.00	99.6
LEAD	500.0	504.70	100.9
MAGNESIUM	12500.0	13070.00	104.6
MANGANESE	500.0	486.00	97.2
NICKEL	500.0	497.90	99.6
POTASSIUM	12500.0	12660.00	101.3
SELENIUM	500.0	500.40	100.1
SILVER	500.0	497.00	99.4
SODIUM	12500.0	12710.00	101.7
THALLIUM	500.0	511.20	102.2
VANADIUM	500.0	513.00	102.6
ZINC	500.0	494.30	98.9

SAMPLE: CCV

File: IBF27A Jun 27, 2011 19:18

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12820.00	102.6
ANTIMONY	500.0	509.60	101.9
ARSENIC	500.0	501.90	100.4
BARIUM	500.0	507.80	101.6
BERYLLIUM	500.0	503.60	100.7
CADMIUM	500.0	502.00	100.4
CALCIUM	12500.0	12170.00	97.4
CHROMIUM	500.0	496.70	99.3
COBALT	500.0	506.00	101.2
COPPER	500.0	510.10	102.0
IRON	12500.0	12420.00	99.4
LEAD	500.0	508.20	101.6
MAGNESIUM	12500.0	13040.00	104.3
MANGANESE	500.0	488.30	97.7
NICKEL	500.0	505.60	101.1
POTASSIUM	12500.0	13270.00	106.2
SELENIUM	500.0	507.60	101.5
SILVER	500.0	506.50	101.3
SODIUM	12500.0	12530.00	100.2
THALLIUM	500.0	510.90	102.2
VANADIUM	500.0	510.80	102.2
ZINC	500.0	493.70	98.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name: JAX04**

Concentration Units: ug/L

SAMPLE: CCV

File: IBF27A Jun 27, 2011 20:13

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12660.00	101.3
ANTIMONY	500.0	504.80	101.0
ARSENIC	500.0	499.00	99.8
BARIUM	500.0	502.80	100.6
BERYLLIUM	500.0	499.80	100.0
CADMIUM	500.0	495.60	99.1
CALCIUM	12500.0	12210.00	97.7
CHROMIUM	500.0	499.90	100.0
COBALT	500.0	505.80	101.2
COPPER	500.0	503.80	100.8
IRON	12500.0	12320.00	98.6
LEAD	500.0	511.60	102.3
MAGNESIUM	12500.0	12760.00	102.1
MANGANESE	500.0	490.10	98.0
NICKEL	500.0	512.80	102.6
POTASSIUM	12500.0	12630.00	101.0
SELENIUM	500.0	502.80	100.6
SILVER	500.0	506.30	101.3
SODIUM	12500.0	12380.00	99.0
THALLIUM	500.0	513.40	102.7
VANADIUM	500.0	505.10	101.0
ZINC	500.0	497.50	99.5

SAMPLE: CCV

File: IBF27A Jun 27, 2011 21:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13010.00	104.1
ANTIMONY	500.0	512.00	102.4
ARSENIC	500.0	508.90	101.8
BARIUM	500.0	509.20	101.8
BERYLLIUM	500.0	514.90	103.0
CADMIUM	500.0	497.70	99.5
CALCIUM	12500.0	12290.00	98.3
CHROMIUM	500.0	510.20	102.0
COBALT	500.0	518.30	103.7
COPPER	500.0	515.50	103.1
IRON	12500.0	12650.00	101.2
LEAD	500.0	526.80	105.4
MAGNESIUM	12500.0	12890.00	103.1
MANGANESE	500.0	500.10	100.0
NICKEL	500.0	534.10	106.8
POTASSIUM	12500.0	12730.00	101.8
SELENIUM	500.0	516.90	103.4
SILVER	500.0	522.20	104.4
SODIUM	12500.0	12610.00	100.9
THALLIUM	500.0	529.60	105.9
VANADIUM	500.0	512.00	102.4
ZINC	500.0	510.20	102.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCV

File: IBF27A Jun 27, 2011 22:02

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13000.00	104.0
ANTIMONY	500.0	515.00	103.0
ARSENIC	500.0	510.50	102.1
BARIUM	500.0	509.90	102.0
BERYLLIUM	500.0	516.40	103.3
CADMIUM	500.0	493.70	98.7
CALCIUM	12500.0	12130.00	97.0
CHROMIUM	500.0	513.60	102.7
COBALT	500.0	522.00	104.4
COPPER	500.0	521.00	104.2
IRON	12500.0	12680.00	101.4
LEAD	500.0	534.70	106.9
MAGNESIUM	12500.0	12830.00	102.6
MANGANESE	500.0	507.90	101.6
NICKEL	500.0	543.60	108.7
POTASSIUM	12500.0	12810.00	102.5
SELENIUM	500.0	522.20	104.4
SILVER	500.0	530.40	106.1
SODIUM	12500.0	12690.00	101.5
THALLIUM	500.0	535.10	107.0
VANADIUM	500.0	513.10	102.6
ZINC	500.0	514.00	102.8

SAMPLE: CCV

File: IBF27A Jun 27, 2011 22:57

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12910.00	103.3
ANTIMONY	500.0	514.40	102.9
ARSENIC	500.0	511.00	102.2
BARIUM	500.0	510.30	102.1
BERYLLIUM	500.0	513.80	102.8
CADMIUM	500.0	498.40	99.7
CALCIUM	12500.0	12230.00	97.8
CHROMIUM	500.0	514.00	102.8
COBALT	500.0	519.30	103.9
COPPER	500.0	516.10	103.2
IRON	12500.0	12690.00	101.5
LEAD	500.0	528.30	105.7
MAGNESIUM	12500.0	12870.00	103.0
MANGANESE	500.0	508.70	101.7
NICKEL	500.0	534.40	106.9
POTASSIUM	12500.0	13650.00	109.2
SELENIUM	500.0	518.20	103.6
SILVER	500.0	524.80	105.0
SODIUM	12500.0	12720.00	101.8
THALLIUM	500.0	530.50	106.1
VANADIUM	500.0	509.60	101.9
ZINC	500.0	511.80	102.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: ICB
File: IBF27A Jun 27, 2011 15:19

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.380	U
NICKEL	0.330	U
POTASSIUM	103.000	U
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.500	I
ZINC	0.190	U

SAMPLE: CCB
File: IBF27A Jun 27, 2011 15:42

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.686	I
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.380	U
NICKEL	0.330	U
POTASSIUM	103.000	U
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.473	I
ZINC	0.190	U

SAMPLE: CCB
File: IBF27A Jun 27, 2011 16:37

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.416	I
NICKEL	0.330	U
POTASSIUM	396.100	I
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.370	U
ZINC	0.190	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCB
File: IBF27A Jun 27, 2011 17:32

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.516	I
NICKEL	0.330	U
POTASSIUM	138.200	I
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.370	U
ZINC	0.190	U

SAMPLE: CCB
File: IBF27A Jun 27, 2011 18:27

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.380	U
NICKEL	0.330	U
POTASSIUM	103.000	U
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.370	U
ZINC	0.190	U

SAMPLE: CCB
File: IBF27A Jun 27, 2011 19:22

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.393	I
NICKEL	0.330	U
POTASSIUM	428.100	I
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	216.900	I
THALLIUM	2.570	U
VANADIUM	0.370	U
ZINC	0.190	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCB
File: IBF27A Jun 27, 2011 20:17

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.380	U
NICKEL	0.330	U
POTASSIUM	117.100	I
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.456	I
ZINC	0.190	U

SAMPLE: CCB
File: IBF27A Jun 27, 2011 21:12

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.049	I
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.380	U
NICKEL	0.330	U
POTASSIUM	103.000	U
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.452	I
ZINC	0.190	U

SAMPLE: CCB
File: IBF27A Jun 27, 2011 22:06

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.053	I
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.380	U
NICKEL	0.330	U
POTASSIUM	103.000	U
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.370	U
ZINC	0.190	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCB

File: IBR27A Jun 27, 2011 23:01

Analyte	Result	C
ALUMINUM	14.400	U
ANTIMONY	1.620	U
ARSENIC	1.580	U
BARIUM	0.230	U
BERYLLIUM	0.030	U
CADMIUM	0.870	U
CALCIUM	11.400	U
CHROMIUM	0.340	U
COBALT	0.310	U
COPPER	0.640	U
IRON	3.020	U
LEAD	1.330	U
MAGNESIUM	5.500	U
MANGANESE	0.380	U
NICKEL	0.330	U
POTASSIUM	422.700	I
SELENIUM	2.440	U
SILVER	0.540	U
SODIUM	110.000	U
THALLIUM	2.570	U
VANADIUM	0.370	U
ZINC	0.190	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBSBF27ICS0

Matrix: SOIL **SDG Name:** JAX04

QC Batch ID: BF27ICS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
ALUMINUM	0.71	U
ANTIMONY	0.07	U
ARSENIC	0.07	U
BARIUM	0.051	I
BERYLLIUM	0.007	U
CADMIUM	0.008	U
CALCIUM	13.000	
CHROMIUM	0.173	I
COBALT	0.03	U
COPPER	0.16	U
IRON	4.398	I
LEAD	0.09	U
MAGNESIUM	4.449	I
MANGANESE	0.16	U
NICKEL	0.100	I
POTASSIUM	9.813	I
SELENIUM	0.17	U
SILVER	0.03	U
SODIUM	11.780	I
THALLIUM	0.104	I
VANADIUM	0.04	U
ZINC	0.17	U

13

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** BF27ICS0

Matrix: SOIL **SDG Name:** JAX04

Method: P Metals **Prep Date:** 06/27/2011

Client ID	Lab Sample ID	Initial (g)	Final (L)
LCSOBF27ICS0	LCSOBF27ICS0	1	0.1
PBSBF27ICS0	PBSBF27ICS0	1	0.1
45-SB05-SB-06242011	SE3674-005	1.17	0.1
45-SB06-SB-06242011	SE3674-006	1.33	0.1
45-SB07-SB-06242011	SE3674-007	1.4	0.1
45-SB08-SB-06242011	SE3674-008	1.14	0.1
45-SB09-SB-06242011	SE3674-009	1.18	0.1
45-SB10-SB-06242011	SE3674-010	1.4	0.1
45-SB11-SB-06242011	SE3674-011	1.23	0.1
45-SB12-SB-06242011	SE3674-012	1.01	0.1
AX45-DUP01-06242011	SE3674-013	1.34	0.1
45-SB13-SB-06242011	SE3674-014	1.6	0.1
45-SB13-SB-06242011D	SE3674-014D	1.65	0.1
45-SB13-SB-06242011S	SE3674-014S	1.56	0.1
45-SB14-SB-06242011	SE3674-015	1.11	0.1

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code: I**

Instrument Name: THERMO ICAP 6500 **Date:** 6/9/2011

Concentration Units: ug/L

Analyte	CRDL	IDL	M
ALUMINUM	300	14.40	P
ANTIMONY	8.0	1.62	P
ARSENIC	8.0	1.58	P
BARIUM	5.0	0.23	P
BERYLLIUM	5.0	0.03	P
CADMIUM	10	0.87	P
CALCIUM	100	11.40	P
CHROMIUM	15	0.34	P
COBALT	30	0.31	P
COPPER	25	0.64	P
IRON	100	3.02	P
LEAD	5.0	1.33	P
MAGNESIUM	100	5.50	P
MANGANESE	5.0	0.38	P
NICKEL	40	0.33	P
POTASSIUM	1000	103.00	P
SELENIUM	10	2.44	P
SILVER	15	0.54	P
SODIUM	1000	110.00	P
THALLIUM	15	2.57	P
VANADIUM	25	0.37	P
ZINC	25	0.19	P

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 1/20/2011

Analyte	LOD	Units	M	EPA Prep./Anal. Method
ALUMINUM	10.00	mg/Kg	P	SW846 3050B / 6010/200.7
ANTIMONY	0.50	mg/Kg	P	SW846 3050B / 6010/200.7
ARSENIC	0.50	mg/Kg	P	SW846 3050B / 6010/200.7
BARIUM	0.30	mg/Kg	P	SW846 3050B / 6010/200.7
BERYLLIUM	0.05	mg/Kg	P	SW846 3050B / 6010/200.7
CADMIUM	0.30	mg/Kg	P	SW846 3050B / 6010/200.7
CALCIUM	8.00	mg/Kg	P	SW846 3050B / 6010/200.7
CHROMIUM	0.40	mg/Kg	P	SW846 3050B / 6010/200.7
COBALT	0.40	mg/Kg	P	SW846 3050B / 6010/200.7
COPPER	1.00	mg/Kg	P	SW846 3050B / 6010/200.7
IRON	8.00	mg/Kg	P	SW846 3050B / 6010/200.7
LEAD	0.40	mg/Kg	P	SW846 3050B / 6010/200.7
MAGNESIUM	8.00	mg/Kg	P	SW846 3050B / 6010/200.7
MANGANESE	0.40	mg/Kg	P	SW846 3050B / 6010/200.7
NICKEL	0.40	mg/Kg	P	SW846 3050B / 6010/200.7
POTASSIUM	50.00	mg/Kg	P	SW846 3050B / 6010/200.7
SELENIUM	0.70	mg/Kg	P	SW846 3050B / 6010/200.7
SILVER	0.40	mg/Kg	P	SW846 3050B / 6010/200.7
SODIUM	50.00	mg/Kg	P	SW846 3050B / 6010/200.7
THALLIUM	0.50	mg/Kg	P	SW846 3050B / 6010/200.7
VANADIUM	0.40	mg/Kg	P	SW846 3050B / 6010/200.7
ZINC	1.00	mg/Kg	P	SW846 3050B / 6010/200.7

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 1/20/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ALUMINUM	0.71	mg/Kg	P	SW846 3050B / SW846 6010B
ANTIMONY	0.07	mg/Kg	P	SW846 3050B / SW846 6010B
ARSENIC	0.07	mg/Kg	P	SW846 3050B / SW846 6010B
BARIUM	0.03	mg/Kg	P	SW846 3050B / SW846 6010B
BERYLLIUM	0.007	mg/Kg	P	SW846 3050B / SW846 6010B
CADMIUM	0.008	mg/Kg	P	SW846 3050B / SW846 6010B
CALCIUM	1.78	mg/Kg	P	SW846 3050B / SW846 6010B
CHROMIUM	0.03	mg/Kg	P	SW846 3050B / SW846 6010B
COBALT	0.03	mg/Kg	P	SW846 3050B / SW846 6010B
COPPER	0.16	mg/Kg	P	SW846 3050B / SW846 6010B
IRON	1.42	mg/Kg	P	SW846 3050B / SW846 6010B
LEAD	0.09	mg/Kg	P	SW846 3050B / SW846 6010B
MAGNESIUM	0.68	mg/Kg	P	SW846 3050B / SW846 6010B
MANGANESE	0.16	mg/Kg	P	SW846 3050B / SW846 6010B
NICKEL	0.04	mg/Kg	P	SW846 3050B / SW846 6010B
POTASSIUM	2.90	mg/Kg	P	SW846 3050B / SW846 6010B
SELENIUM	0.17	mg/Kg	P	SW846 3050B / SW846 6010B
SILVER	0.03	mg/Kg	P	SW846 3050B / SW846 6010B
SODIUM	1.48	mg/Kg	P	SW846 3050B / SW846 6010B
THALLIUM	0.09	mg/Kg	P	SW846 3050B / SW846 6010B
VANADIUM	0.04	mg/Kg	P	SW846 3050B / SW846 6010B
ZINC	0.17	mg/Kg	P	SW846 3050B / SW846 6010B

INSTRUMENT RUNLOG

Instrument: ICAP 6500

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Blank	1.000	IBF27A	6/27/2011	15:06	EAM
Std 1	1.000	IBF27A	6/27/2011	15:10	EAM
ICV	1.000	IBF27A	6/27/2011	15:15	EAM
ICB	1.000	IBF27A	6/27/2011	15:19	EAM
PQL	1.000	IBF27A	6/27/2011	15:24	EAM
ICSA	1.000	IBF27A	6/27/2011	15:28	EAM
ICSAB	1.000	IBF27A	6/27/2011	15:33	EAM
CCV	1.000	IBF27A	6/27/2011	15:38	EAM
CCB	1.000	IBF27A	6/27/2011	15:42	EAM
SE3446-001	2.000	IBF27A	6/27/2011	15:47	EAM
SE3446-003	2.000	IBF27A	6/27/2011	15:51	EAM
SE3446-003L	10.00	IBF27A	6/27/2011	15:56	EAM
SE3446-003A	2.000	IBF27A	6/27/2011	16:01	EAM
SE3446-003S	2.000	IBF27A	6/27/2011	16:05	EAM
SE3548-001	2.000	IBF27A	6/27/2011	16:10	EAM
PBWBF24ICW0	1.000	IBF27A	6/27/2011	16:15	EAM
LCSWBF24ICW0	1.000	IBF27A	6/27/2011	16:19	EAM
SE3461-022	1.000	IBF27A	6/27/2011	16:24	EAM
SE3461-023	1.000	IBF27A	6/27/2011	16:29	EAM
CCV	1.000	IBF27A	6/27/2011	16:33	EAM
CCB	1.000	IBF27A	6/27/2011	16:37	EAM
SE3461-024	1.000	IBF27A	6/27/2011	16:42	EAM
SE3482-001	1.000	IBF27A	6/27/2011	16:47	EAM
SE3482-001L	5.000	IBF27A	6/27/2011	16:51	EAM
SE3482-001S	1.000	IBF27A	6/27/2011	16:56	EAM
SE3482-001P	1.000	IBF27A	6/27/2011	17:00	EAM
SE3482-002	1.000	IBF27A	6/27/2011	17:05	EAM
SE3482-003	1.000	IBF27A	6/27/2011	17:09	EAM
SE3482-004	1.000	IBF27A	6/27/2011	17:14	EAM
SE3482-005	1.000	IBF27A	6/27/2011	17:19	EAM
SE3482-006	1.000	IBF27A	6/27/2011	17:23	EAM
CCV	1.000	IBF27A	6/27/2011	17:28	EAM
CCB	1.000	IBF27A	6/27/2011	17:32	EAM
SE3482-007	1.000	IBF27A	6/27/2011	17:37	EAM
SE3482-008	1.000	IBF27A	6/27/2011	17:41	EAM
SE3482-009	1.000	IBF27A	6/27/2011	17:46	EAM
SE3482-019	1.000	IBF27A	6/27/2011	17:51	EAM
SE3482-020	1.000	IBF27A	6/27/2011	17:55	EAM
SE3547-001T	1.000	IBF27A	6/27/2011	18:00	EAM
PBWBF27ICW0	1.000	IBF27A	6/27/2011	18:04	EAM
LCSWBF27ICW0	1.000	IBF27A	6/27/2011	18:09	EAM
SE3684-001	1.000	IBF27A	6/27/2011	18:14	EAM
SE3684-002	1.000	IBF27A	6/27/2011	18:18	EAM
CCV	1.000	IBF27A	6/27/2011	18:23	EAM

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
CCB	1.000	IBF27A	6/27/2011	18:27	EAM
SE3684-003	1.000	IBF27A	6/27/2011	18:32	EAM
SE3684-004	1.000	IBF27A	6/27/2011	18:36	EAM
SE3684-005	1.000	IBF27A	6/27/2011	18:41	EAM
SE3603-001	1.000	IBF27A	6/27/2011	18:45	EAM
SE3621-001	1.000	IBF27A	6/27/2011	18:50	EAM
SE3622-001	1.000	IBF27A	6/27/2011	18:55	EAM
SE3622-001L	5.000	IBF27A	6/27/2011	18:59	EAM
SE3622-001S	1.000	IBF27A	6/27/2011	19:04	EAM
SE3622-001P	1.000	IBF27A	6/27/2011	19:08	EAM
SE3631-001	1.000	IBF27A	6/27/2011	19:13	EAM
CCV	1.000	IBF27A	6/27/2011	19:18	EAM
CCB	1.000	IBF27A	6/27/2011	19:22	EAM
SE3649-001	1.000	IBF27A	6/27/2011	19:27	EAM
SE3657-004	1.000	IBF27A	6/27/2011	19:31	EAM
SE3669-002	1.000	IBF27A	6/27/2011	19:36	EAM
PBWBF27ICW1	1.000	IBF27A	6/27/2011	19:40	EAM
LCSWBF27ICW1	1.000	IBF27A	6/27/2011	19:45	EAM
SE3604-001	1.000	IBF27A	6/27/2011	19:50	EAM
SE3641-002	1.000	IBF27A	6/27/2011	19:54	EAM
SE3641-003	1.000	IBF27A	6/27/2011	19:59	EAM
SE3641-004	1.000	IBF27A	6/27/2011	20:03	EAM
SE3576-001R	1.000	IBF27A	6/27/2011	20:08	EAM
CCV	1.000	IBF27A	6/27/2011	20:13	EAM
CCB	1.000	IBF27A	6/27/2011	20:17	EAM
SE3576-002R	1.000	IBF27A	6/27/2011	20:22	EAM
SE3576-002RL	5.000	IBF27A	6/27/2011	20:26	EAM
SE3576-002RS	1.000	IBF27A	6/27/2011	20:31	EAM
SE3576-002RP	1.000	IBF27A	6/27/2011	20:35	EAM
PBSBF27ICS0	1.000	IBF27A	6/27/2011	20:40	EAM
LCSOBF27ICS0	1.000	IBF27A	6/27/2011	20:44	EAM
SE3632-001	1.000	IBF27A	6/27/2011	20:49	EAM
SE3674-005	1.000	IBF27A	6/27/2011	20:53	EAM
SE3674-006	1.000	IBF27A	6/27/2011	20:58	EAM
SE3674-007	1.000	IBF27A	6/27/2011	21:03	EAM
CCV	1.000	IBF27A	6/27/2011	21:07	EAM
CCB	1.000	IBF27A	6/27/2011	21:12	EAM
SE3674-008	1.000	IBF27A	6/27/2011	21:16	EAM
SE3674-009	1.000	IBF27A	6/27/2011	21:21	EAM
SE3674-010	1.000	IBF27A	6/27/2011	21:25	EAM
SE3674-011	1.000	IBF27A	6/27/2011	21:30	EAM
SE3674-012	1.000	IBF27A	6/27/2011	21:35	EAM
SE3674-013	1.000	IBF27A	6/27/2011	21:39	EAM
SE3674-014	1.000	IBF27A	6/27/2011	21:44	EAM
SE3674-014L	5.000	IBF27A	6/27/2011	21:48	EAM
SE3674-014A	1.000	IBF27A	6/27/2011	21:53	EAM
SE3674-014D	1.000	IBF27A	6/27/2011	21:57	EAM

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
CCV	1.000	IBF27A	6/27/2011	22:02	EAM
CCB	1.000	IBF27A	6/27/2011	22:06	EAM
SE3674-014S	1.000	IBF27A	6/27/2011	22:11	EAM
SE3674-015	1.000	IBF27A	6/27/2011	22:15	EAM
SE3671-001	1.000	IBF27A	6/27/2011	22:20	EAM
SE3671-002	1.000	IBF27A	6/27/2011	22:24	EAM
SE3671-003	1.000	IBF27A	6/27/2011	22:29	EAM
SE3671-004	1.000	IBF27A	6/27/2011	22:33	EAM
SE3446-001R	2.000	IBF27A	6/27/2011	22:38	EAM
SE3446-003R	5.000	IBF27A	6/27/2011	22:43	EAM
SE3446-003RL	25.00	IBF27A	6/27/2011	22:47	EAM
SE3446-003RA	5.000	IBF27A	6/27/2011	22:52	EAM
CCV	1.000	IBF27A	6/27/2011	22:57	EAM
CCB	1.000	IBF27A	6/27/2011	23:01	EAM
SE3446-003RS	5.000	IBF27A	6/27/2011	23:06	EAM
SE3446-003RP	5.000	IBF27A	6/27/2011	23:10	EAM
SE3446-003R	10.00	IBF27A	6/27/2011	23:15	EAM
SE3446-003RL	50.00	IBF27A	6/27/2011	23:19	EAM
SE3446-003RA	10.00	IBF27A	6/27/2011	23:24	EAM
SE3446-003RS	10.00	IBF27A	6/27/2011	23:29	EAM
SE3446-003RP	10.00	IBF27A	6/27/2011	23:33	EAM
CCV	1.000	IBF27A	6/27/2011	23:38	EAM
CCB	1.000	IBF27A	6/27/2011	23:42	EAM
PQL	1.000	IBF27A	6/27/2011	23:47	EAM
ICSA	1.000	IBF27A	6/27/2011	23:51	EAM
ICSAB	1.000	IBF27A	6/27/2011	23:56	EAM
CCV	1.000	IBF27A	6/28/2011	0:01	EAM
CCB	1.000	IBF27A	6/28/2011	0:05	EAM

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: ICV

File: HBF30A Jun 30, 2011 12:46

Analyte	True	Found	%R (1)
MERCURY	6.0	5.57	92.8

SAMPLE: CCV

File: HBF30A Jun 30, 2011 13:18

Analyte	True	Found	%R (1)
MERCURY	5.0	5.13	102.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCV

File: HBF30A Jun 30, 2011 13:43

Analyte	True	Found	%R (1)
MERCURY	5.0	5.20	104.0

SAMPLE: CCV

File: HBF30A Jun 30, 2011 14:25

Analyte	True	Found	%R (1)
MERCURY	5.0	5.24	104.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: PQL

File: HBF30A Jun 30, 2011 12:57

Analyte	TRUE	FOUND	% R
MERCURY	0.2	0.21	105.0

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: ICB

File: HBF30A Jun 30, 2011 12:48

Analyte	Result	C
MERCURY	0.030	U

SAMPLE: CCB

File: HBF30A Jun 30, 2011 13:20

Analyte	Result	C
MERCURY	0.037	I

SAMPLE: CCB

File: HBF30A Jun 30, 2011 13:45

Analyte	Result	C
MERCURY	0.032	I

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** JAX04

Concentration Units: ug/L

SAMPLE: CCB

File: HBF30A Jun 30, 2011 14:27

Analyte	Result	C
MERCURY	0.035	I

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBSBF29HGS0

Matrix: SOIL **SDG Name:** JAX04

QC Batch ID: BF29HGS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.007	I

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** BF29HGS0

Matrix: SOIL **SDG Name:** JAX04

Method: CV **Prep Date:** 06/29/2011

Client ID	Lab Sample ID	Initial (g)	Final (L)
LCSOBF29HGS0	LCSOBF29HGS0	0.1	0.1
PBSBF29HGS0	PBSBF29HGS0	0.6	0.1
45-SB05-SB-06242011	SE3674-005	0.6	0.1
45-SB06-SB-06242011	SE3674-006	0.6	0.1
45-SB07-SB-06242011	SE3674-007	0.62	0.1
45-SB08-SB-06242011	SE3674-008	0.65	0.1
45-SB09-SB-06242011	SE3674-009	0.63	0.1
45-SB10-SB-06242011	SE3674-010	0.6	0.1
45-SB11-SB-06242011	SE3674-011	0.66	0.1
45-SB12-SB-06242011	SE3674-012	0.61	0.1
AX45-DUP01-06242011	SE3674-013	0.7	0.1
45-SB13-SB-06242011	SE3674-014	0.64	0.1
45-SB13-SB-06242011D	SE3674-014D	0.67	0.1
45-SB13-SB-06242011S	SE3674-014S	0.69	0.1
45-SB14-SB-06242011	SE3674-015	0.7	0.1

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 6/9/2011

Concentration Units: ug/L

Analyte	CRDL	IDL	M
MERCURY	0.20	0.03	CV

LIMITS of DETECTION

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 1/7/2011

Analyte	LOD	Units	M	EPA Prep./Anal. Method
MERCURY	0.02	mg/Kg	CV	SW846 7471A / 7471

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 1/7/2011

Analyte	MDL	Units	M	EPA Prep./Anal. Method
MERCURY	0.005	mg/Kg	CV	SW846 7471A / SW846 7471A

INSTRUMENT RUNLOG

Instrument: CETAC M6100

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
Calibration Blank	1.0000	HBF30A	6/30/2011	12:33	HHH
Standard #1 (0.2 ppb)	1.0000	HBF30A	6/30/2011	12:35	HHH
Standard #2 (0.5 ppb)	1.0000	HBF30A	6/30/2011	12:37	HHH
Standard #3 (1.0 ppb)	1.0000	HBF30A	6/30/2011	12:39	HHH
Standard #4 (5.0 ppb)	1.0000	HBF30A	6/30/2011	12:42	HHH
Standard #5 (10.0 ppb)	1.0000	HBF30A	6/30/2011	12:44	HHH
ICV	1.0000	HBF30A	6/30/2011	12:46	HHH
ICB	1.0000	HBF30A	6/30/2011	12:48	HHH
PQL	1.0000	HBF30A	6/30/2011	12:57	HHH
LCSOBF29HGS0	1.0000	HBF30A	6/30/2011	12:59	HHH
PBSBF29HGS0	1.0000	HBF30A	6/30/2011	13:01	HHH
SE3548-001	1.0000	HBF30A	6/30/2011	13:03	HHH
SE3625-001	1.0000	HBF30A	6/30/2011	13:05	HHH
SE3663-001	1.0000	HBF30A	6/30/2011	13:07	HHH
SE3671-001	1.0000	HBF30A	6/30/2011	13:09	HHH
SE3671-002	1.0000	HBF30A	6/30/2011	13:11	HHH
SE3671-003	1.0000	HBF30A	6/30/2011	13:13	HHH
SE3671-004	1.0000	HBF30A	6/30/2011	13:16	HHH
CCV	1.0000	HBF30A	6/30/2011	13:18	HHH
CCB	1.0000	HBF30A	6/30/2011	13:20	HHH
SE3674-005	1.0000	HBF30A	6/30/2011	13:22	HHH
SE3674-006	1.0000	HBF30A	6/30/2011	13:24	HHH
SE3674-007	1.0000	HBF30A	6/30/2011	13:26	HHH
SE3674-008	1.0000	HBF30A	6/30/2011	13:28	HHH
SE3674-009	1.0000	HBF30A	6/30/2011	13:30	HHH
SE3674-010	1.0000	HBF30A	6/30/2011	13:33	HHH
SE3674-011	1.0000	HBF30A	6/30/2011	13:35	HHH
SE3674-012	1.0000	HBF30A	6/30/2011	13:37	HHH
SE3674-013	1.0000	HBF30A	6/30/2011	13:39	HHH
SE3674-014	1.0000	HBF30A	6/30/2011	13:41	HHH
CCV	1.0000	HBF30A	6/30/2011	13:43	HHH
CCB	1.0000	HBF30A	6/30/2011	13:45	HHH
SE3674-014L	5.0000	HBF30A	6/30/2011	13:47	HHH
SE3674-004P	1.0000	HBF30A	6/30/2011	13:50	HHH
SE3674-004S	1.0000	HBF30A	6/30/2011	13:52	HHH
SE3674-015	1.0000	HBF30A	6/30/2011	13:54	HHH
SE3689-001	1.0000	HBF30A	6/30/2011	13:56	HHH
LOD	1.0000	HBF30A	6/30/2011	13:59	HHH
LOD DUP	1.0000	HBF30A	6/30/2011	14:02	HHH
LOQ	1.0000	HBF30A	6/30/2011	14:04	HHH
LOQ DUP	1.0000	HBF30A	6/30/2011	14:08	HHH
SE3689-001	10.0000	HBF30A	6/30/2011	14:23	HHH
CCV	1.0000	HBF30A	6/30/2011	14:25	HHH
CCB	1.0000	HBF30A	6/30/2011	14:27	HHH

SAMPLE ID	DF	FILE	DATE	TIME	ANALYST
LOD	1.0000	HBF30A	6/30/2011	14:29	HHH
CCV	1.0000	HBF30A	6/30/2011	14:31	HHH
CCB	1.0000	HBF30A	6/30/2011	14:33	HHH

NAS JACKSONVILLE
SOIL DATA
JAX04

FRACTION	CHEMICAL	JAX45-DUP01-06242011	UNITS	AX45-SB12-SB-0624201	RPD	D
MISC	TOTAL SOLIDS	93	%	93	0.00	0.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

NAS JACKSONVILLE
SOIL DATA
JAX04

FRACTION	CHEMICAL	JAX45-DUP01-06242011	UNITS	AX45-SB12-SB-0624201	RPD	D
M	ALUMINUM	689	MG/KG	1730	86.07	1041.00
M	ANTIMONY	ND	MG/KG	0.08 J	200.00	0.08
M	ARSENIC	0.68	MG/KG	0.81 J	17.45	0.13
M	BARIUM	7.3	MG/KG	19.2	89.81	11.90
M	BERYLLIUM	ND	MG/KG	0.15 J	200.00	0.15
M	CADMIUM	3.6	MG/KG	15.8	125.77	12.20
M	CALCIUM	5020	MG/KG	8340	49.70	3320.00
M	CHROMIUM	2.6	MG/KG	28.9	166.98	26.30
M	COBALT	0.1 J	MG/KG	1.3 J	171.43	1.20
M	COPPER	25.8	MG/KG	24.4	5.58	1.40
M	IRON	840	MG/KG	2320	93.67	1480.00
M	LEAD	17.9	MG/KG	136	153.48	118.10
M	MAGNESIUM	72.1	MG/KG	451	144.87	378.90
M	MANGANESE	53.6	MG/KG	70.7	27.51	17.10
M	MERCURY	0.04	MG/KG	0.07	54.55	0.03
M	NICKEL	0.82 J	MG/KG	3.9 J	130.51	3.08
M	SILVER	ND	MG/KG	0.08 J	200.00	0.08
M	VANADIUM	4	MG/KG	10	85.71	6.00
M	ZINC	114	MG/KG	623	138.13	509.00

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

Quality Control Report

Blank Sample Summary Report

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL	LOD
MBLANK	WG93470	ASTM D2216	30-JUN-11	29-JUN-11	U 1 %	1 %	N/A

Quality Control Report

Laboratory Control Sample Summary Report

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG93470-2	LCS	WG93470	30-JUN-11	29-JUN-11	%	90	90.	100	80-120	

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG93470-4	SE3674-14	WG93470	30-JUN-11	%	80.	80.	0	20

APPENDIX D

BACKGROUND METALS

Table 4-1
Identification of Background Concentration - Surface Soil

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Parameter	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Volatiles (µg/kg)				
Acetone	6/10	3 - 11	6.7	NA
Semivolatiles (µg/kg)				
Anthracene	1/10	37 - 37	37	NA
Benzo(a)Anthracene	2/10	27 - 250	139	NA
Benzo(a)Pyrene	3/10	29 - 150	71	NA
Benzo(b)Fluoranthene	3/10	26 - 330	140	NA
Benzo(g,h,i)Perylene	3/10	43 - 80	57.3	NA
Benzo(k)Fluoranthene	3/10	20 - 100	49.3	NA
Carbazole	1/10	46 - 46	46	NA
Chrysene	3/10	24 - 350	138	NA
Di-n-Butylphthalate	1/10	355 - 355	355	NA
Dibenz(a,h)Anthracene	2/10	18 - 31	24.5	NA
Fluoranthene	3/10	20 - 390	147	NA
Indeno(1,2,3-cd)Pyrene	3/10	41 - 88	57	NA
Phenanthrene	1/10	36 - 36	36	NA
Phenol	1/10	19 - 19	19	NA
Pyrene	3/10	28 - 430	163	NA
bis(2-Ethylhexyl)Phthalate	1/10	18 - 18	18	NA
Pesticides and PCBs (µg/kg)				
4,4-DDD	1/10	2.7 - 2.7	2.7	NA
4,4-DDE	4/10	1.8 - 12	4.6	NA
4,4-DDT	3/10	2.2 - 18	8.2	NA
Aroclor-1260	1/10	26 - 26	26	NA
Dieldrin	2/10	0.43 - 97	48.7	NA
alpha-Chlordane	1/10	0.25 - 0.25	0.25	NA
gamma-Chlordane	2/10	0.37 - 0.81	0.59	NA
Dioxins (µg/kg)				
1,2,3,4,6,7,8-HpCDD	1/3	0.0614 - 0.0614	0.0614	NA
OCDD	2/3	0.211 - 0.517	0.364	NA
Inorganics (mg/kg)				
Aluminum	10/10	31.8 - 1,710	670	1,340
Arsenic	7/10	0.29 - 0.6	0.4	0.8
Barium	10/10	1.1 - 12.7	5.6	11.2
Calcium	10/10	48.2 - 6,200	1,180	2,360
Chromium	7/10	1.5 - 4.6	3.3	6.6
Copper	3/10	1.7 - 5.2	2.9	5.8

See notes at end of table.

Table 4-1 (Continued)
Identification of Background Concentration - Surface Soil

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Parameter	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Inorganics (mg/kg)				
Cyanide	3/7	0.18 - 0.22	0.2	0.4
Iron	10/10	124 - 928	426	852
Lead	10/10	1.2 - 26.6	7.2	14.4
Magnesium	9/10	15.9 - 154	49.9	99.8
Manganese	10/10	1.4 - 37.4	9	18
Nickel	5/10	2.8 - 14.7	5.5	11
Sodium	8/10	103 - 221	144	288
Thallium	1/10	0.21 - 0.21	0.21	0.42
Vanadium	8/9	0.58 - 4.6	1.9	3.8
Zinc	8/10	3.8 - 16.1	7.6	15.2
Radioisotopes (pCi/g)[4]				
Actinium-228	10/10	0.652 - 1.46	1	2
Bismuth-210	4/10	1.4 - 2.58	1.9	3.8
Bismuth-214	10/10	0.437 - 1.02	0.71	1.42
Cesium-137	8/10	0.0301 - 0.527	0.14	0.28
Lead-212	10/10	0.325 - 0.923	0.63	1.26
Lead-214	10/10	0.412 - 0.991	0.67	1.34
Potassium-40	10/10	0.8 - 4.335	2.6	5.2
Radium-223	4/10	0.709 - 1.56	1.1	2.2
Radium-224	7/10	0.82 - 2.14	1.5	3.0
Radium-228	10/10	0.652 - 1.46	1	2
Thallium-208	10/10	0.175 - 0.529	0.33	0.66
Thorium-231	5/10	0.069 - 0.145	0.12	0.24
Thorium-232	9/10	0.724 - 1.46	1.1	2.2
Thorium-234	2/10	0.595 - 4.24	2.4	4.8
Uranium-234	2/10	2.23 - 2.38	2.3	4.6
Uranium-238	2/10	2.23 - 2.38	2.3	4.6

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed. The samples are identified in Section 4.2.1.7 and Appendix P-4.
[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected. It does not include those samples in which the analyte was not detected.
[3] Two times the mean for inorganic analytes and radionuclides. Values of organic compounds detected in background surface soil samples are considered on a case-by-case basis in the evaluation of "site" samples.
[4] The surface soil background screening concentration for radium-226, calculated from lead-214 concentrations, has been determined at 1.3 pCi/g.

Notes: µg/kg = micrograms per kilogram.
NA = not applicable.
PCBs = polychlorinated biphenyls.
DDD = dichlorodiphenyldichloroethane.
DDE = dichlorodiphenyldichloroethene.
DDT = dichlorodiphenyltrichloroethane.
HpCDD = heptachlorodibenzo-p-dioxin.
OCDD = octachlorodibenzodioxin.
mg/kg = milligrams per kilogram.
pCi/g = picocuries per gram.

Table 4-2
Identification of Background Concentration - Subsurface Soil

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Parameter	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Volatiles (µg/kg)				
Acetone	4/11	4 - 11	7.25	NA
Semivolatiles (µg/kg)				
Benzo(a)Pyrene	1/11	21 - 21	21	NA
Benzo(b)Fluoranthene	1/11	34 - 34	34	NA
Benzo(g,h,i)Perylene	1/11	29 - 29	29	NA
bis(2-Ethylhexyl)Phthalate	6/11	54 - 170	90.33	NA
Di-n-Butylphthalate	1/11	460 - 460	460	NA
Indeno(1,2,3-cd)Pyrene	1/11	23 - 23	23	NA
Phenol	4/11	20 - 24	21.5	NA
Pesticides and PCBs (µg/kg)				
4,4-DDE	1/11	0.29 - 0.29	0.29	NA
4,4-DDT	1/11	1.7 - 1.7	1.7	NA
alpha-Chlordane	2/11	0.37 - 0.45	0.41	NA
gamma-Chlordane	2/10	0.41 - 0.55	0.48	NA
Methoxychlor	1/11	1.2 - 1.2	1.2	NA
Inorganics (mg/kg)				
Aluminum	10/10	373 - 7,620	3,411.6	6,823.2
Arsenic	6/10	0.41 - 2.0	0.74	1.48
Barium	10/10	2.0 - 20.9	10.4	20.8
Beryllium	2/10	0.24 - 0.25	0.245	0.49
Calcium	10/10	44.8 - 1,200	334.15	668.3
Chromium	9/10	2.9 - 12.3	7.056	14.1
Iron	10/10	105 - 15600	2909.1	5818.2
Lead	10/10	1.5 - 5.6	3.23	6.46
Magnesium	8/10	104 - 700	250.125	500.25
Manganese	10/10	1.5 - 7.2	3.45	6.90
Potassium	3/10	187 - 252	225.33	450.67
Sodium	9/10	117 - 342	171.556	343.10
Zinc	9/10	4.1 - 12.8	7.244	14.49
Radionuclides (pCi/g)[4]				
Actinium-228	8/10	0.466 - 1.95	1.201	2.40
Bismuth-210	3/10	0.444 - 2.03	1.241	2.48
Bismuth-214	9/10	0.642 - 1.58	0.936	1.87
Lead-212	10/10	0.237 - 1.17	0.671	1.34
Lead-214	10/10	0.212 - 1.34	0.744	1.49

See notes at end of table.

Table 4-2 (Continued)
Identification of Background Concentration - Subsurface Soil

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Parameter	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Radionuclides (pCi/g)				
Potassium-40	8/10	2.12 - 8.76	5.57	11.14
Radium-223	3/10	0.286 - 1.56	0.9	1.80
Radium-224	6/10	1.13 - 2.31	1.585	3.17
Radium-228	8/10	0.429 - 1.95	1.216	2.43
Thallium-208	10/10	0.113 - 0.511	0.328	0.66
Thorium-231	6/10	0.044 - 0.240	0.145	0.29
Thorium-232	7/10	0.429 - 1.95	1.171	2.34
Thorium-234	5/10	2.96 - 4.53	3.484	6.98
Uranium-234	5/10	1.6 - 2.52	1.962	3.92
Uranium-238	5/10	1.6 - 2.52	1.962	3.92
Vanadium	9/10	0.99 - 16.7	7.288	14.58

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed. The samples are identified in Section 4.2.2.6 and Appendix P-4.
[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected. It does not include those samples in which the analyte was not detected.
[3] Two times the mean for inorganic analytes and radionuclides. Values of organic compounds detected in background surface soil samples are considered on a case-by-case basis in the evaluation of "site" samples.
[4] The subsurface soil background screening concentration for radium-226, calculated from lead-214 concentrations, has been determined at 1.5 pCi/g.

Notes: µg/kg = micrograms per kilogram.
NA = not applicable.
PCBs = polychlorinated biphenyls.
DDE = dichlorodiphenyldichloroethene.
DDT = dichlorodiphenyltrichloroethane.
mg/kg = milligrams per kilogram.
pCi/g = picocuries per gram.

Table 4-3
List of Soil Sampling Locations

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Soil Locations Inside Boundaries of Presumptive Remedy

SL001	SL027	SL045	SL099
SL002	SL028	SL046	SL100
SL003	SL029	SL047	SL101
SL009	SL030	SL048	SL102
SL010	SL032	SL049	SL103
SL011	SL033	SL050	SL27001
SL012	SL034	SL051	SL27002
SL013	SL035	SL052	SL27003
SL014	SL036	SL064	SL27004
SL016	SL037	SL072	SL27005
SL017	SL038	SL083	SL27006
SL018	SL039	SL088	SL27007
SL019	SL040	SL091	SL27008
SL022	SL041	SL093	SL27009
SL023	SL042	SL094	SL27010
SL024	SL043	SL097	SL27011
SL025	SL044	SL098	

Soil Locations Outside Boundaries of Presumptive Remedy

SL004	SL063	SL087	SL119
SL005	SL065	SL089	SL120
SL006	SL066	SL090	SL121
SL007	SL067	SL092	SL122
SL008	SL068	SL095	SL123
SL015	SL069	SL096	SL124
SL020	SL070	SL104	SL125
SL021	SL071	SL105	SL126
SL026	SL073	SL106	SL127
SL031	SL074	SL107	U1DSMW100
SL053	SL075	SL108	U1DSMW102
SL054	SL076	SL109	U1DSMW104
SL055	SL077	SL110	U1DSMW106
SL056	SL078	SL111	U1DSMW108
SL057	SL079	SL112	U1DSMW88
SL058	SL080	SL113	U1DSMW90
SL059	SL081	SL114	U1DSMW94
SL060	SL082	SL115	U1DSMW96
SL061	SL084	SL116	U1DSMW98
SL062	SL085	SL117	U1SSMW93
	SL086	SL118	U1SSMW97
			U1SSMW99

Table 4-4
Identification of Background Concentrations - Surface Water

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Parameter	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Inorganics (µg/ℓ)				
Arsenic	3/4	0.7 - 2.9	1.6	3.2
Barium	4/4	29.2 - 70.2	41.5	83
Calcium	4/4	7,320 - 34,200	19,555	39,110
Copper	4/4	2.1 - 7.1	3.8	7.6
Cyanide	3/4	0.6 - 3.1	1.5	3
Iron	4/4	362 - 1,920	1,218	2,436
Lead	4/4	0.8 - 8.7	3.3	6.6
Magnesium	4/4	1,800 - 5,090	3,063	6,126
Manganese	4/4	6.1 - 28.9	19.8	39.6
Potassium	4/4	453 - 1,530	896	1,792
Sodium	4/4	7,770 - 14,400	10,435	20,870
Vanadium	4/4	2 - 3.4	2.8	5.6
Zinc	4/4	14.8 - 38.7	23.2	46.4
Radionuclides (pCi/ℓ)				
Bismuth-214	1/4	11.2 - 11.2	11.2	(*)
Thorium-234	1/4	158 - 158	158	(*)
Dissolved Inorganics (µg/ℓ)				
Diss. Aluminum	4/4	32.5 - 301	211	422
Diss. Arsenic	4/4	0.9 - 2.7	1.5	3.0
Diss. Barium	4/4	28.8 - 48.1	35.3	70.6
Diss. Cadmium	1/4	0.73 - 0.73	0.73	1.46
Diss. Calcium	4/4	7,050 - 32,500	19,013	38,026
Diss. Copper	3/4	1.6 - 6.2	3.1	6.2
Diss. Iron	4/4	232 - 1,090	601	1,202
Diss. Lead	2/4	0.9 - 1.5	1.2	2.4
Diss. Magnesium	4/4	1,780 - 4,930	3,013	6,026
Diss. Manganese	4/4	6.8 - 29.2	17.8	35.6
Diss. Potassium	4/4	615 - 1,430	940	1,880
Diss. Sodium	4/4	7,760 - 14,300	10,410	20,820
Diss. Vanadium	1/4	4.3 - 4.3	4.3	8.6
Diss. Zinc	4/4	14.5 - 21.1	17.8	35.6

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed. The four samples used are taken from SW/SD58, SW/SD59, SW/SD60 and SW/SD62.
[2] The average of detected concentrations is the mean of all samples in which the analyte was detected. It does not include those samples in which the analyte was not detected.
[3] Two times the mean for inorganic analytes and radiological parameters.
(*) Background screening concentrations for radionuclides were not developed for this set.

Notes: µg/ℓ = micrograms per liter.
pCi/ℓ = picocuries per liter.

Table 4-5
Identification of Background Concentrations - Sediment

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Chemical	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Volatiles (µg/kg)				
2-Butanone	1/4	8 - 8	8	NA
Acetone	3/4	24 - 35	28.7	NA
Semivolatiles (µg/kg)				
Anthracene	1/4	84 - 84	84	NA
Benzo(a)Anthracene	1/4	470 - 470	470	NA
Benzo(a)Pyrene	1/4	480 - 480	480	NA
Benzo(b)Fluoranthene	1/4	540 - 540	540	NA
Benzo(g,h,i)Perylene	1/4	90 - 90	90	NA
Benzo(k)Fluoranthene	1/4	370 - 370	370	NA
Chrysene	1/4	540 - 540	540	NA
Dibenz(a,h)Anthracene	1/4	80 - 80	80	NA
Fluoranthene	1/4	1,300 - 1,300	1,300	NA
Indeno(1,2,3-cd)Pyrene	1/4	180 - 180	180	NA
Phenanthrene	1/4	590 - 590	590	NA
Pyrene	1/4	1,100 - 1,100	1,100	NA
Pesticides and PCBs (µg/kg)				
4,4-DDD	1/4	51 - 51	51	NA
4,4-DDE	2/4	3.1 - 170	86.6	NA
Inorganics (mg/kg)				
Aluminum	4/4	239 - 1,220	595	1,190
Antimony	1/4	4.6 - 4.6	4.6	9.2
Arsenic	3/4	0.2 - 0.97	0.63	1.26
Barium	4/4	2.2 - 9.6	4.9	9.8
Beryllium	1/4	0.24 - 0.24	0.24	0.48
Cadmium	1/4	0.3 - 0.3	0.3	0.6
Calcium	4/4	124 - 8,660	3,234	6,468
Chromium	3/4	0.73 - 2.9	1.9	3.8
Cobalt	1/4	1.9 - 1.9	1.9	3.8
Copper	3/4	2.6 - 4.2	3.5	7
Cyanide	3/4	0.06 - 0.11	0.08	0.16
Iron	4/4	560 - 2,290	1,150	2,300
Lead	4/4	2 - 12.3	7.2	14.4
Magnesium	4/4	25.2 - 110	65.5	131
Manganese	4/4	1.5 - 4.9	3.4	6.8
Mercury	1/4	0.05 - 0.05	0.05	0.1

See notes at end of table.

Table 4-5 (Continued)
Identification of Background Concentrations - Sediment

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Chemical	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Inorganics (mg/kg)				
Nickel	3/4	2.9 - 3.4	3.1	6.2
Potassium	1/4	109 - 109	109	218
Selenium	1/4	0.21 - 0.21	0.21	0.42
Sodium	3/4	239 - 260	249	498
Thallium	1/4	0.19 - 0.19	0.19	0.38
Vanadium	3/4	0.77 - 4.6	2.6	5.2
Zinc	4/4	2.6 - 18.8	9.2	18.4
Radionuclides (pCi/g)				
Actinium-228	4/4	0.64 - 0.887	0.8	1.6
Bismuth-212	2/4	1.06 - 1.34	1.2	2.4
Bismuth-214	4/4	0.418 - 0.668	0.54	1.08
Cesium-137	2/4	0.0953 - 0.14	0.12	0.24
Lead-212	4/4	0.378 - 0.816	0.52	1.04
Lead-214	1/4	0.447 - 0.447	0.45	0.90
Potassium-40	1/4	3.66 - 3.66	3.7	7.4
Thallium-208	4/4	0.188 - 0.286	0.24	0.48
Uranium-235	1/4	0.125 - 0.125	0.13	0.26

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed. The samples used are taken from SW/SD58, SW/SD59, SW/SD60, and SW/SD62.
[2] The average of detected concentrations is the mean of all samples in which the analyte was detected. It does not include those samples in which the analyte was not detected.
[3] Two times the mean for inorganic analytes and radiological parameters.

Notes: µg/kg = micrograms per kilogram.
NA = not applicable.
PCBs = polychlorinated biphenyls.
DDD = dichlorodiphenyldichloroethane.
DDE = dichlorodiphenyldichloroethene.
mg/kg = milligrams per kilogram.
pCi/g = picocuries per gram.

Table 4-6
Identification of Background Screening Concentration - Groundwater

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Parameter	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Volatiles (µg/ℓ)				
Carbon Disulfide	5/42	1 - 7	3	NA
Chloroform	1/42	2 - 2	2	NA
Chloromethane	2/42	1 - 3	2	NA
Xylene (total)	1/42	1 - 1	1	NA
Semivolatiles (µg/ℓ)				
Diethylphthalate	1/42	3 - 3	3	NA
Phenol	1/42	1 - 1	1	NA
bis(2-Ethylhexyl)Phthalate	18/42	0.6 - 64	6.1	NA
Pesticides and PCBs (µg/ℓ)				
4,4'-DDE	1/42	0.006 - 0.006	0.01	NA
Dieldrin	1/42	*0.016 - *0.016	0.02	NA
Inorganics (µg/ℓ)				
Aluminum	42/42	146 - 451,000	73,659	147,318
Antimony	2/40	20.2 - *22.7	21.5	43
Arsenic	34/42	*1.05 - 14.2	6.6	13.2
Barium	42/42	19.3 - 3,160	308	616
Beryllium	30/42	*0.335 - 30	4.1	8.2
Cadmium	12/42	0.78 - 8.8	4.1	8.2
Calcium	42/42	2,300 - 163,000	29,533	59,066
Chromium	36/42	*2.35 - 542	104	208
Cobalt	26/42	3.5 - 57.8	11.3	22.6
Copper	30/42	3.2 - 78.5	20.2	40.4
Cyanide	4/42	1.8 - 2.5	2.2	4.4
Iron	42/42	255 - 187,000	34,146	68,292
Lead	36/42	0.5 - 136	22.9	45.8
Magnesium	42/42	3,340 - 36,700	9,658	19,316
Manganese	42/42	7.4 - 1,240	102	204
Mercury	18/42	0.14 - 2.1	0.49	0.98
Nickel	21/42	9.6 - 174	37.4	74.8
Potassium	41/42	902 - 17,700	4,519	9,038
Selenium	9/42	*0.56 - 47.9	6.9	13.8
Silver	2/42	4.2 - *5.1	4.7	9.4
Sodium	42/42	790 - 29,000	12,313	24,626
Vanadium	37/42	*2.625 - *728.5	147	294
Inorganics (µg/ℓ)				
Zinc	42/42	6.6 - 261	86.6	173.2

See notes at end of table.

Table 4-6 (Continued)
Identification of Background Screening Concentration - Groundwater

Remedial Investigation and Feasibility Study, Operable Unit 1
Naval Air Station Jacksonville
Jacksonville, Florida

Parameter	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Background Screening Concentration[3]
Radioisotope ($\mu g/\ell$)				
Actinium-228	2/42	*11.7 - 21.8	16.8	33.6
Bismuth-214	3/42	*5.3 - 11.6	7.5	15
Lead-214	3/42	*6.7 - 18.1	13.3	26.6
Potassium-40	3/42	60.1 - 138	92.6	185.6
Radium-224	6/42	*54.5 - 105	88.4	176.8
Thallium-208	3/42	*3.7 - 7.3	5.7	11.4
Diss. Aluminum	34/42	8 - 74,200	8,905	NA
Diss. Antimony	9/42	12.8 - *30.05	19.6	NA
Diss. Arsenic	16/42	*0.6 - 6.6	3.2	NA
Diss. Barium	42/42	*9.9 - *250	64.1	NA
Diss. Beryllium	10/42	*0.43 - 3.2	1.3	NA
Diss. Cadmium	4/42	1 - 6.2	3.7	NA
Diss. Calcium	42/42	1,130 - *99,300	23,232	NA
Diss. Chromium	16/42	2.5 - 75.8	23.7	NA
Diss. Cobalt	8/42	*2.75 - *6.4	4.8	NA
Diss. Copper	22/42	1.1 - 12.7	5.3	NA
Diss. Iron	41/42	11.8 - *27,800	4,509	NA
Diss. Lead	21/42	0.6 - 18.9	4.1	NA
Diss. Magnesium	42/42	1,030 - *15,800	4,773	NA
Diss. Manganese	41/42	*2.65 - 134	35.4	NA
Diss. Mercury	1/42	0.1 - 0.1	0.1	NA
Diss. Nickel	4/42	*10.3 - 19.5	13.2	NA
Diss. Potassium	42/42	585 - *5,770	1,912	NA
Diss. Selenium	2/42	1.2 - 4.1	2.7	NA
Diss. Sodium	42/42	2,070 - 31,200	12,410	NA
Diss. Thallium	1/42	1 - 1	1	NA
Diss. Vanadium	24/42	*2.625 - *105.55	25.6	NA
Diss. Zinc	39/42	6.2 - 134	35.1	NA

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed. The samples analyzed are identified in Table R-4.7.
[2] The mean of detected concentrations is the mean of all samples in which the analyte was detected. It does not include those samples in which the analyte was not detected.
[3] Two times the mean for inorganic analytes.
[4] The groundwater background screening concentration for radium-226, calculated from lead-214 concentrations, has been determined at 26.6 pCi/ℓ.
* Value is the average of a sample and its duplicate.

Notes: $\mu g/\ell$ = micrograms per liter.
NA = not applicable.
PCBs = polychlorinated biphenyls.
DDE = dichlorodiphenyldichloroethene.

APPENDIX E

SUMMARY OF ANALYTICAL RESULTS

Table E-1
Summary of Phase I Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA TAP RSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATION					JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE					20110504	20110504	20110504	20110504
METALS (µg/L)								
ALUMINUM	200	GCTL	200	16000	**218 J**	**251 J**	**2420**	58.7 J
ANTIMONY	6	GCTL	6	6	1.28 U	1.28 U	1.28 U	1.3 U
ARSENIC	0.045	RSL	10	0.045	1.43 U	**1.7 J**	1.43 U	**8.2**
BARIUM	2000	GCTL	2000	2900	34.2	20.3	37.6	32.8
BERYLLIUM	4	GCTL	4	16	0.1 U	0.1 U	0.1 U	0.1 U
CADMIUM	5	GCTL	5	6.9	0.05 U	0.05 U	0.05 U	0.05 U
CALCIUM	NC	GCTL	NC	NC	8760	96600	32900	8420
CHROMIUM	100	GCTL	100	NC	0.88 J	2.6 J	6 J	0.36 U
COBALT	4.7	RSL	140	4.7	3.7 J	0.39 J	0.74 J	**8.7 J**
COPPER	620	RSL	1000	620	0.63 U	1.5 J	3.5 J	0.63 U
IRON	300	GCTL	300	11000	**1210**	**4860**	**7720**	**19800**
LEAD	15	GCTL	15	NC	1.07 U	1.1 J	2.4 J	1.07 U
MAGNESIUM	NC	GCTL	NC	NC	2050	5850	11500	2310
MANGANESE	50	GCTL	50	320	**160**	**231**	**104**	**179**
MERCURY	0.63	RSL	2	0.63	0.01 U	0.01 U	0.03 J	0.01 U
NICKEL	100	GCTL	100	300	1.6 J	0.64 J	2.5 J	0.71 J
POTASSIUM	NC	GCTL	NC	NC	1190	5490	2710	1410
SELENIUM	50	GCTL	50	78	2.36 U	2.36 U	3 J	2.36 U
SILVER	71	RSL	100	71	0.27 U	0.27 U	0.27 U	0.43 J
SODIUM	160000	GCTL	160000	NC	9220	8520	3770	8160
THALLIUM	0.16	RSL	2	0.16	1.07 U	1.07 U	1.07 U	1.07 U
VANADIUM	49	GCTL	49	78	0.29 J	1.1 J	5.2 J	0.23 U

Table E-1
Summary of Phase I Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA TAP RSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATION					JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE					20110504	20110504	20110504	20110504
METALS (µg/L)								
ZINC	4700	RSL	5000	4700	17.5 J	11.7 J	5.7 J	11.6 J
PCBS (µg/L)				NC				
AROCLOR-1016	0.96	RSL	NC	0.96	0.15 U	0.16 U	0.14 U	0.15 U
AROCLOR-1221	0.0043	RSL	NC	0.0043	0.2 U	0.22 U	0.19 U	0.21 U
AROCLOR-1232	0.0043	RSL	NC	0.0043	0.091 U	0.096 U	0.086 U	0.092 U
AROCLOR-1242	0.034	RSL	NC	0.034	0.18 U	0.19 U	0.17 U	0.18 U
AROCLOR-1248	0.034	RSL	NC	0.034	0.2 U	0.22 U	0.19 U	0.21 U
AROCLOR-1254	0.034	RSL	NC	0.034	0.084 U	0.088 U	0.079 U	0.084 U
AROCLOR-1260	0.034	RSL	NC	0.034	0.17 U	0.18 U	0.16 U	0.18 U
PETROLEUM HYDROCARBONS (µg/L)								
TPH (C08-C40)	5000	GCTL	5000	NC	140 U	**12000**	140 U	310 J
POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)								
1-METHYLNAPHTHALENE	0.97	RSL	28	0.97	0.069 U	**12**	0.069 U	0.065 U
2-METHYLNAPHTHALENE	27	RSL	28	27	0.078 U	9.3	0.078 U	0.074 U
ACENAPHTHENE	20	GCTL	20	400	0.065 U	0.085 J	0.065 U	0.062 U
ACENAPHTHYLENE	210	GCTL	210	400	0.054 U	0.056 U	0.054 U	0.052 U
ANTHRACENE	1300	RSL	2100	1300	0.044 U	0.045 U	0.044 U	0.042 U
BENZO(A)ANTHRACENE	0.029	RSL	0.05	0.029	0.046 U	0.047 U	0.046 U	**0.14 J**
BENZO(A)PYRENE	0.0029	RSL	0.2	0.0029	0.067 U	0.068 U	**0.16 J**	0.063 U
BENZO(B)FLUORANTHENE	0.029	RSL	0.05	0.029	0.09 U	0.092 U	0.09 U	0.086 U
BENZO(G,H,I)PERYLENE	87	RSL	210	87	0.066 U	0.067 U	0.066 U	0.062 U
BENZO(K)FLUORANTHENE	0.29	RSL	0.5	0.29	0.049 U	0.05 U	0.049 U	0.047 U

Table E-1
Summary of Phase I Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA TAP RSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATION					JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE					20110504	20110504	20110504	20110504
POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)								
CHRYSENE	2.9	RSL	4.8	2.9	0.036 U	0.037 U	0.036 U	0.035 U
DIBENZO(A,H)ANTHRACENE	0.0029	RSL	0.005	0.0029	0.071 U	0.072 U	0.071 U	0.067 U
FLUORANTHENE	280	GCTL	280	630	0.074 U	0.075 U	0.074 U	0.07 U
FLUORENE	280	RSL	280	220	0.062 U	0.081 J	0.062 U	0.059 U
INDENO(1,2,3-CD)PYRENE	0.029	RSL	0.05	0.029	0.052 U	0.054 U	0.052 U	0.05 U
NAPHTHALENE	0.14	RSL	14	0.14	0.065 U	**52**	0.065 U	0.062 U
PHENANTHRENE	87	RSL	210	87	0.052 U	0.052 U	0.052 U	0.049 U
PYRENE	87	RSL	210	87	0.06 U	0.061 U	0.06 U	0.057 U
SEMIVOLATILES (µg/L)								
1,1-BIPHENYL	0.5	GCTL	0.5	0.83	2.7 U	**3.4 J**	2.7 U	2.6 U
2,2'-OXYBIS(1-CHLOROPROPANE)	0.31	RSL	0.5	0.31	2.1 U	2.2 U	2.1 U	2 U
2,4,5-TRICHLOROPHENOL	1	GCTL	1	890	3.6 U	3.7 U	3.6 U	3.5 U
2,4,6-TRICHLOROPHENOL	3.2	GCTL	3.2	3.5	2.7 U	2.8 U	2.7 U	2.6 U
2,4-DICHLOROPHENOL	0.3	GCTL	0.3	35	3 U	3.1 U	3 U	2.9 U
2,4-DIMETHYLPHENOL	140	GCTL	140	270	4.4 U	12	4.4 U	4.2 U
2,4-DINITROPHENOL	14	GCTL	14	30	1 U	1 U	1 U	0.96 U
2,4-DINITROTOLUENE	0.05	GCTL	0.05	0.2	2.2 U	2.3 U	2.2 U	2.1 U
2,6-DINITROTOLUENE	0.05	GCTL	0.05	15	2 U	2.1 U	2 U	1.9 U
2-CHLORONAPHTHALENE	550	RSL	560	550	2.9 U	3 U	2.9 U	2.8 U
2-CHLOROPHENOL	35	GCTL	35	71	3.2 U	3.3 U	3.2 U	3.1 U
2-METHYLPHENOL	35	GCTL	35	720	3.8 U	3.9 U	3.8 U	3.6 U
2-NITROANILINE	21	GCTL	21	150	1.8 U	1.8 U	1.8 U	1.7 U

Table E-1
Summary of Phase I Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION / SAMPLE IDENTIFICATION / SAMPLE DATE	PAL	PAL Source	Florida GCTL	USEPA TAP RSL	JAX45-B200-MW01D JAX-45-B200-MW01D-20110504 20110504	JAX45-B200-MW01S JAX-45-B200-MW01S-20110504 20110504	JAX45-B200-MW02D JAX-45-B200-MW02D-20110504 20110504	JAX45-B200-MW02S JAX-45-B200-MW02S-20110504 20110504
SEMIVOLATILES (µg/L)								
2-NITROPHENOL	NC	GCTL	NC	NC	2.7 U	2.8 U	2.7 U	2.6 U
3&4-METHYLPHENOL	NC	GCTL	NC	NC	5.6 U	5.8 U	5.6 U	5.4 U
3,3'-DICHLOROBENZIDINE	0.08	GCTL	0.08	0.11	1.1 U	1.1 U	1.1 U	1 U
3-NITROANILINE	1.7	GCTL	1.7	NC	1.5 U	1.5 U	1.5 U	1.4 U
4,6-DINITRO-2-METHYLPHENOL	1.2	RSL	NC	1.2	2 U	2.1 U	2 U	1.9 U
4-BROMOPHENYL PHENYL ETHER	NC	GCTL	NC	NC	1.9 U	2 U	1.9 U	1.8 U
4-CHLORO-3-METHYLPHENOL	63	GCTL	63	1100	3.6 U	3.7 U	3.6 U	3.5 U
4-CHLOROANILINE	0.32	RSL	28	0.32	1.9 U	2 U	1.9 U	1.8 U
4-CHLOROPHENYL PHENYL ETHER	NC	GCTL	NC	NC	2.2 U	2.3 U	2.2 U	2.1 U
4-NITROANILINE	1.7	GCTL	1.7	3.3	1.6 U	1.6 U	1.6 U	1.5 U
4-NITROPHENOL	56	GCTL	56	NC	1.8 UJ	1.8 UJ	1.8 UJ	1.7 UJ
ACETOPHENONE	700	GCTL	700	1500	3.9 U	4 U	3.9 U	3.8 U
ATRAZINE	0.26	RSL	3	0.26	3.3 UJ	3.4 UJ	3.3 UJ	3.2 UJ
BENZALDEHYDE	700	GCTL	700	1500	1 UJ	1 UJ	1 UJ	0.96 UJ
BIS(2-CHLOROETHOXY)METHANE	47	RSL	NC	47	2.1 U	2.2 U	2.1 U	2 U
BIS(2-CHLOROETHYL)ETHER	0.012	RSL	0.03	0.012	2 U	2.1 U	2 U	1.9 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.071	RSL	6	0.071	1.7 U	1.8 U	1.7 U	1.6 U
BUTYL BENZYL PHTHALATE	14	RSL	140	14	1.9 U	2 U	1.9 U	1.8 U
CAPROLACTAM	7700	RSL	NC	7700	0.4 U	0.41 U	0.4 U	0.38 U
CARBAZOLE	1.8	GCTL	1.8	NC	2.1 U	2.2 U	2.1 U	2 U
DIBENZOFURAN	5.8	RSL	28	5.8	1.6 U	1.6 U	1.6 U	1.5 U
DIETHYL PHTHALATE	5600	GCTL	5600	11000	2 U	2.1 U	2 U	1.9 U

Table E-1
Summary of Phase I Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA TAP RSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATION					JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE					20110504	20110504	20110504	20110504
SEMIVOLATILES (µg/L)								
DIMETHYL PHTHALATE	70000	GCTL	70000	NC	2 U	2.1 U	2 U	1.9 U
DI-N-BUTYL PHTHALATE	670	RSL	700	670	2.5 U	4.1 J	2.5 U	2.4 U
DI-N-OCTYL PHTHALATE	140	GCTL	140	NC	1.8 U	1.8 U	1.8 U	1.7 U
HEXACHLOROBENZENE	0.042	RSL	1	0.042	2.1 U	2.2 U	2.1 U	2 U
HEXACHLOROBUTADIENE	0.26	RSL	0.4	0.26	1.8 U	1.8 U	1.8 U	1.7 U
HEXACHLOROCYCLOPENTADIENE	22	RSL	50	22	1.2 U	1.2 U	1.2 U	1.2 U
HEXACHLOROETHANE	0.79	RSL	2.5	0.79	2.3 U	2.4 U	2.3 U	2.2 U
ISOPHORONE	37	RSL	37	67	1.7 U	1.8 U	1.7 U	1.6 U
NITROBENZENE	0.12	RSL	3.5	0.12	3.1 U	3.2 U	3.1 U	3 U
N-NITROSO-DI-N-PROPYLAMINE	0.005	GCTL	0.005	0.0093	2 U	2.1 U	2 U	1.9 U
N-NITROSODIPHENYLAMINE	7.1	GCTL	7.1	10	3.7 U	3.8 U	3.7 U	3.6 U
PENTACHLOROPHENOL	0.17	RSL	1	0.17	2.3 U	2.4 U	2.3 U	2.2 U
PHENOL	10	GCTL	10	4500	1.8 U	1.8 U	1.8 U	1.7 U
VOLATILES (µg/L)				NC				
1,1,1-TRICHLOROETHANE	200	GCTL	200	7500	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-TETRACHLOROETHANE	0.066	RSL	0.2	0.066	0.38 U	0.38 U	0.38 U	0.38 U
1,1,2-TRICHLOROETHANE	0.24	RSL	5	0.24	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	RSL	210000	53000	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	RSL	70	2.4	0.21 U	0.21 U	0.21 U	**56**
1,1-DICHLOROETHENE	7	GCTL	7	260	0.35 U	0.35 U	0.38 J	**750**
1,2,4-TRICHLOROBENZENE	0.99	RSL	70	0.99	0.37 U	0.37 U	0.37 U	0.37 U
1,2-DIBROMO-3-CHLOROPROPANE	0.00032	RSL	0.2	0.00032	0.5 U	0.5 U	0.5 U	0.5 U

Table E-1
Summary of Phase I Groundwater Analytical Results

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Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA TAP RSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATION					JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE					20110504	20110504	20110504	20110504
VOLATILES (µg/L)								
1,2-DIBROMOETHANE	0.0065	RSL	0.02	0.0065	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROBENZENE	280	RSL	600	280	0.15 U	8.6	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	RSL	3	0.15	0.2 U	0.2 U	0.2 U	**20**
1,2-DICHLOROPROPANE	0.38	RSL	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	210	GCTL	210	NC	0.26 U	0.26 U	0.26 U	0.26 U
1,4-DICHLOROBENZENE	0.42	RSL	75	0.42	0.24 U	**1.7**	0.24 U	0.24 U
2-BUTANONE	4200	GCTL	4200	4900	1.3 U	1.3 U	1.3 U	1.3 U
2-HEXANONE	34	RSL	280	34	1.7 U	1.7 U	1.7 U	1.7 U
4-METHYL-2-PENTANONE	560	GCTL	560	1000	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	GCTL	6300	12000	2.2 U	2.2 U	2.2 U	2.2 U
BENZENE	0.39	RSL	1	0.39	0.26 U	0.34 J	0.26 U	**1.1**
BROMODICHLOROMETHANE	0.12	RSL	0.6	0.12	0.33 U	0.33 U	0.33 U	0.33 U
BROMOFORM	4.4	GCTL	4.4	7.9	0.23 U	0.23 U	0.23 U	0.23 U
BROMOMETHANE	7	RSL	9.8	7	0.49 U	0.49 U	0.49 U	0.49 U
CARBON DISULFIDE	700	GCTL	700	720	0.25 U	0.25 U	0.25 U	0.25 U
CARBON TETRACHLORIDE	0.39	RSL	3	0.39	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROBENZENE	72	RSL	100	72	0.22 U	0.22 U	0.22 U	0.22 U
CHLORODIBROMOMETHANE	0.15	RSL	0.4	0.15	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	12	GCTL	12	21000	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ
CHLOROFORM	0.19	RSL	70	0.19	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	GCTL	2.7	190	0.36 U	0.36 U	0.36 U	0.36 U
CIS-1,2-DICHLOROETHENE	28	RSL	70	28	0.21 U	13	0.21 U	2.2

Table E-1
Summary of Phase I Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA TAP RSL	JAX45-B200-MW01D	JAX45-B200-MW01S	JAX45-B200-MW02D	JAX45-B200-MW02S
SAMPLE IDENTIFICATION					JAX-45-B200-MW01D-20110504	JAX-45-B200-MW01S-20110504	JAX-45-B200-MW02D-20110504	JAX-45-B200-MW02S-20110504
SAMPLE DATE					20110504	20110504	20110504	20110504
VOLATILES (µg/L)								
CIS-1,3-DICHLOROPROPENE	0.41	RSL	NC	0.41	0.19 U	0.19 U	0.19 U	0.19 U
CYCLOHEXANE	13000	RSL	NC	13000	0.31 U	1.6	0.31 U	0.31 U
DICHLORODIFLUOROMETHANE	190	RSL	1400	190	0.24 U	0.24 U	0.24 U	0.24 U
ETHYLBENZENE	1.3	RSL	30	1.3	0.21 U	**10**	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	GCTL	0.8	390	0.23 U	**3.5**	0.23 U	0.23 U
METHYL ACETATE	3000	GCTL	3000	16000	0.53 U	0.53 U	0.53 U	0.53 U
METHYL CYCLOHEXANE	NC	GCTL	NC	NC	0.3 U	3.4	0.3 U	0.3 U
METHYL TERT-BUTYL ETHER	12	RSL	20	12	0.36 U	0.36 U	0.36 U	0.36 U
METHYLENE CHLORIDE	4.7	RSL	5	4.7	1.1 U	1.1 U	1.1 U	1.1 U
STYRENE	100	GCTL	100	1100	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.072	RSL	3	0.072	0.4 U	**16**	0.4 U	0.4 U
TOLUENE	40	GCTL	40	860	0.27 U	24	0.27 U	0.36 J
TOTAL XYLENES	20	GCTL	20	190	0.25 U	**44**	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	RSL	100	86	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,3-DICHLOROPROPENE	NC	GCTL	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U
TRICHLOROETHENE	0.44	RSL	3	0.44	0.28 U	**2.3**	0.31 J	**390**
TRICHLOROFLUOROMETHANE	1100	RSL	2100	1100	0.24 U	0.24 U	0.24 U	0.24 U
VINYL CHLORIDE	0.015	RSL	1	0.015	0.25 U	0.25 U	0.25 U	**0.7 J**

Table E-2
Summary of Phase II Soil Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB05	JAX45-SB06	JAX45-SB07	JAX45-SB08	JAX45-SB09	JAX45-SB10
SAMPLE IDENTIFICATION							JAX-45-SB05-SB-06242011	JAX-45-SB06-SB-06242011	JAX-45-SB07-SB-06242011	JAX-45-SB08-SB-06242011	JAX-45-SB09-SB-06242011	JAX-45-SB10-SB-06242011
SAMPLE DATE							20110623	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
METALS (mg/kg)												
ALUMINUM	80000	NC	6823.2	77000	77000	RSL	1980 J	2730 J	2430 J	209 J	3770 J	2060 J
ANTIMONY	27	5.4	NC	31	5.4	FL-LEACH	0.08 U	0.06 U	0.06 U	0.06 U	0.07 U	0.06 U
ARSENIC	2.1	NC	1.48	0.39	0.39	FL-SCTL	**0.54 J**	**0.64 J**	**0.66 J**	**0.56 J**	**0.82**	**0.74**
BARIUM	120	1600	20.8	15000	120	FL-SCTL	7.4 J	6.3 J	8.5 J	4.8 J	7.9 J	4.8 J
BERYLLIUM	120	63	0.49	160	63	FL-LEACH	0.05 J	0.06 J	0.09 J	0.02 U	0.07 J	0.03 J
CADMIUM	82	7.5	NC	70	7.5	FL-LEACH	0.7 J	0.37 J	0.78 J	0.05 J	0.06 J	0.05 J
CALCIUM	NC	NC	668.3	NC	668.3	BACK	**3420**	**1630**	**11400**	**766**	**16000**	**5870**
CHROMIUM	210	38	14.1	NC	38	FL-LEACH	4.7 J	3.4 J	6.7 J	0.64 U	4.1 J	2.6 J
COBALT	1700	NC	NC	23	23	RSL	0.21 J	0.13 J	0.29 J	0.03 U	0.18 J	0.08 J
COPPER	150	NC	NC	3100	150	FL-SCTL	4.1	3.2	7.2	1.8 J	4.1	1.8 J
IRON	53000	NC	5818.2	55000	53000	FL-SCTL	615 J	1040 J	1470 J	193 J	1010 J	396 J
LEAD	400	NC	6.46	400	400	FL-SCTL	22.5 J	14 J	47.9 J	4.9 J	5.4 J	3.2 J
MAGNESIUM	NC	NC	500.25	NC	500.25	BACK	117 J	136 J	200 J	26 J	274 J	128 J
MANGANESE	3500	NC	6.9	1800	1800	RSL	9.8	14.2	25.6	6.7	10.7	6.8
MERCURY	3	2.1	NC	10	2.1	FL-LEACH	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
NICKEL	340	130	NC	1500	130	FL-LEACH	1.3 J	1.1 J	1.5 J	0.12 U	1 J	0.74 J
POTASSIUM	NC	NC	450.67	NC	450.67	BACK	56.6 U	74 U	100 U	19.3 U	124 U	58.8 U
SELENIUM	440	5.2	NC	390	5.2	FL-LEACH	0.2 U	0.15 U	0.15 U	0.16 U	0.17 U	0.15 U
SILVER	410	17	NC	390	17	FL-LEACH	0.03 U	0.02 U	0.03 J	0.02 U	0.03 U	0.02 U
SODIUM	NC	NC	343.1	NC	343.1	BACK	30.9 U	37.1 U	36.1 U	19.5 U	32.4 U	25.9 U
THALLIUM	6.1	2.8	NC	0.78	0.78	RSL	0.1 U	0.08 U	0.07 U	0.08 U	0.08 U	0.07 U
VANADIUM	67	980	NC	390	67	FL-SCTL	2.1 J	3	4	0.81 J	4.4	2.1 J
ZINC	26000	NC	14.49	23000	23000	RSL	24.8 J	24.7 J	31.4 J	1.7 J	14.9 J	6.6 J
MISCELLANEOUS PARAMETERS (%)												
TOTAL SOLIDS	NC	NC	NC	NC	NC	NC	72	86	82	95	86	82
PCBS (µg/kg)												
AROCLOR-1016	NC	NC	NC	3900	3900	RSL	8 UJ	6.7 UJ	7.2 UJ	6.2 U	6.8 U	6.6 U
AROCLOR-1221	NC	NC	NC	140	140	RSL	10 U	8.8 U	9.5 U	8.2 U	9 U	8.6 U
AROCLOR-1232	NC	NC	NC	140	140	RSL	12 U	10 U	11 U	9.7 U	10 U	10 U
AROCLOR-1242	NC	NC	NC	220	220	RSL	7.7 U	6.5 U	7 U	6 U	6.6 U	6.4 U
AROCLOR-1248	NC	NC	NC	220	220	RSL	8.1 U	6.8 U	7.3 U	6.4 U	6.9 U	6.7 U
AROCLOR-1254	NC	NC	NC	220	220	RSL	6.2 U	5.2 U	5.6 U	4.9 U	5.4 U	5.1 U
AROCLOR-1260	NC	NC	NC	220	220	RSL	8 UJ	6.7 UJ	7.2 UJ	6.2 U	6.8 U	6.6 U
TOTAL AROCLOR	500	17000	NC	220	220	RSL	0 U	0 U	0 U	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (mg/kg)												
TPH (C08-C40)	460	340	NC	NC	340	FL-LEACH	250	210	140	100	28	29

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Jacksonville, Florida

LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB05	JAX45-SB06	JAX45-SB07	JAX45-SB08	JAX45-SB09	JAX45-SB10
SAMPLE IDENTIFICATION							JAX-45-SB05-SB-06242011	JAX-45-SB06-SB-06242011	JAX-45-SB07-SB-06242011	JAX-45-SB08-SB-06242011	JAX-45-SB09-SB-06242011	JAX-45-SB10-SB-06242011
SAMPLE DATE							20110623	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
POLYCYCLIC AROMATIC HYDROCARBONS (µg/kg)												
1-METHYLNAPHTHALENE	200000	3100	NC	22000	3100	FL-LEACH	6.7 J	8.9 J	10 J	1.8 U	1.9 U	1.9 U
2-METHYLNAPHTHALENE	210000	8500	NC	310000	8500	FL-LEACH	7.8 J	5.4 J	13 J	2.3 U	2.5 U	2.5 U
ACENAPHTHENE	2400000	2100	NC	3400000	2100	FL-LEACH	17 J	68	25	4 J	1.7 U	1.7 U
ACENAPHTHYLENE	1800000	27000	NC	3400000	27000	FL-LEACH	2.9 J	1.4 U	6.3 J	11 J	1.4 U	1.3 U
ANTHRACENE	21000000	2500000	NC	17000000	2500000	FL-LEACH	12 J	57	12 J	6.6 J	2.8 J	1.3 U
BAP EQUIVALENT-HALFND	100	NC	NC	15	15	RSL	**134.47**	**446.02**	**257.03**	**234.88**	**53.712**	**17.1561**
BENZO(A)ANTHRACENE	NC	800	NC	150	150	RSL	68	**280 J**	130	110 J	32	4 J
BENZO(A)PYRENE	100	8000	NC	15	15	RSL	**87**	**300**	**170**	**150**	**35**	11 J
BENZO(B)FLUORANTHENE	NC	2400	NC	150	150	RSL	150	**430**	**280**	**240**	52	15 J
BENZO(G,H,I)PERYLENE	2500000	32000000	NC	1700000	1700000	RSL	69	130	100	99	18 J	9.4 J
BENZO(K)FLUORANTHENE	NC	24000	NC	1500	1500	RSL	57	170	86	76	18 J	5 J
CHRYSENE	NC	77000	NC	15000	15000	RSL	100	320	170	120	32	6.1 J
DIBENZO(A,H)ANTHRACENE	NC	700	NC	15	15	RSL	15 J	**49**	**30**	**34**	6.9 J	2.8 J
FLUORANTHENE	3200000	1200000	NC	2300000	1200000	FL-LEACH	200	640	340	150	58	7.7 J
FLUORENE	2600000	160000	NC	2300000	160000	FL-LEACH	10 J	46	16 J	3.3 U	3.6 U	3.6 U
INDENO(1,2,3-CD)PYRENE	NC	6600	NC	150	150	RSL	100 J	**240**	150 J	150 J	32 J	14 J
NAPHTHALENE	55000	1200	NC	3600	1200	FL-LEACH	15 J	6.3 J	33	2.7 U	2.9 U	2.9 U
PHENANTHRENE	2200000	250000	NC	1700000	250000	FL-LEACH	150	360 J	200	40 J	9.9 J	2.2 J
PYRENE	2400000	880000	NC	1700000	880000	FL-LEACH	140	390 J	220	110 J	34	6 J
SEMIVOLATILES (µg/kg)												
1,1-BIPHENYL	3000000	200	NC	51000	200	FL-LEACH	99 U	84 U	88 U	76 U	83 U	82 U
2,2'-OXYBIS(1-CHLOROPROPANE)	6000	9	NC	4600	9	FL-LEACH	120 UJ	100 UJ	110 UJ	93 UJ	100 UJ	100 UJ
2,4,5-TRICHLOROPHENOL	7700000	70	NC	6100000	70	FL-LEACH	210 U	180 U	190 U	160 U	180 U	170 U
2,4,6-TRICHLOROPHENOL	70000	60	NC	44000	60	FL-LEACH	210 U	180 U	190 U	160 U	180 U	170 U
2,4-DICHLOROPHENOL	190000	3	NC	180000	3	FL-LEACH	200 U	170 U	180 U	160 U	170 U	170 U
2,4-DIMETHYLPHENOL	1300000	1700	NC	1200000	1700	FL-LEACH	220 U	190 U	200 U	170 U	190 U	180 U
2,4-DINITROPHENOL	110000	60	NC	120000	60	FL-LEACH	510 U	440 U	450 U	390 U	430 U	420 U
2,4-DINITROTOLUENE	1200	0.4	NC	1600	0.4	FL-LEACH	120 U	98 U	100 U	89 U	96 U	95 U
2,6-DINITROTOLUENE	1200	0.4	NC	61000	0.4	FL-LEACH	110 U	92 U	95 U	82 U	89 U	88 U
2-CHLORONAPHTHALENE	5000000	260000	NC	6300000	260000	FL-LEACH	120 U	100 U	100 U	91 U	98 U	97 U
2-CHLOROPHENOL	130000	700	NC	390000	700	FL-LEACH	220 U	190 U	200 U	170 U	180 U	180 U
2-METHYLPHENOL	2900000	300	NC	3100000	300	FL-LEACH	270 U	230 U	240 U	210 U	230 U	220 U
2-NITROANILINE	24000	100	NC	610000	100	FL-LEACH	100 U	87 U	90 U	78 U	85 U	84 U
2-NITROPHENOL	NC	NC	NC	NC	NC	NC	230 U	190 U	200 U	170 U	190 U	190 U
3&4-METHYLPHENOL	NC	NC	NC	NC	NC	NC	250 U	220 U	220 U	200 U	210 U	210 U
3,3'-DICHLOROBENZIDINE	2100	3	NC	1100	3	FL-LEACH	150 U	130 U	140 U	120 U	130 U	130 U
3-NITROANILINE	21000	10	NC	NC	10	FL-LEACH	130 U	110 U	110 U	98 U	110 U	100 U
4,6-DINITRO-2-METHYLPHENOL	8400	400	NC	4900	400	FL-LEACH	460 U	390 U	410 U	350 U	380 U	380 U
4-BROMOPHENYL PHENYL ETHER	NC	NC	NC	NC	NC	NC	120 U	98 U	100 U	89 U	96 U	95 U

Table E-2
Summary of Phase II Soil Analytical Results

Remedial Investigation Report, PSC 45
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Jacksonville, Florida

LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB05	JAX45-SB06	JAX45-SB07	JAX45-SB08	JAX45-SB09	JAX45-SB10
SAMPLE IDENTIFICATION							JAX-45-SB05-SB-06242011	JAX-45-SB06-SB-06242011	JAX-45-SB07-SB-06242011	JAX-45-SB08-SB-06242011	JAX-45-SB09-SB-06242011	JAX-45-SB10-SB-06242011
SAMPLE DATE							20110623	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
SEMIVOLATILES (µg/kg)												
4-CHLORO-3-METHYLPHENOL	600000	400	NC	6100000	400	FL-LEACH	220 U	190 U	200 U	170 U	190 U	180 U
4-CHLOROANILINE	270000	200	NC	2400	200	FL-LEACH	160 U	140 U	140 U	120 U	130 U	130 U
4-CHLOROPHENYL PHENYL ETHER	NC	NC	NC	NC	NC	NC	100 U	90 U	94 U	82 U	88 U	87 U
4-NITROANILINE	17000	8	NC	24000	8	FL-LEACH	180 U	160 U	160 U	140 U	150 U	150 U
4-NITROPHENOL	560000	300	NC	NC	300	FL-LEACH	420 U	360 U	370 U	320 U	350 U	340 U
ACETOPHENONE	3900000	3900	NC	7800000	3900	FL-LEACH	240 U	210 U	210 U	190 U	200 U	200 U
ATRAZINE	4300	60	NC	2100	60	FL-LEACH	120 U	100 U	110 U	95 U	100 U	100 U
BENZALDEHYDE	3300000	4800	NC	7800000	4800	FL-LEACH	160 U	140 U	140 U	120 U	140 U	130 U
BIS(2-CHLOROETHOXY)METHANE	250000	63000	NC	180000	63000	FL-LEACH	130 U	110 U	120 U	100 U	110 U	110 U
BIS(2-CHLOROETHYL)ETHER	300	0.1	NC	210	0.1	FL-LEACH	110 U	94 U	98 U	85 U	92 U	90 U
BIS(2-ETHYLHEXYL)PHTHALATE	72000	3600000	NC	35000	35000	RSL	130 U	110 U	120 U	100 U	110 U	110 U
BUTYL BENZYL PHTHALATE	17000000	310000	NC	260000	260000	RSL	130 U	110 U	110 U	97 U	100 U	100 U
CAPROLACTAM	NC	NC	NC	31000000	31000000	RSL	200 U	170 U	170 U	150 U	160 U	160 U
CARBAZOLE	49000	200	NC	NC	200	FL-LEACH	150 U	130 U	130 U	120 U	120 U	120 U
DIBENZOFURAN	320000	15000	NC	78000	15000	FL-LEACH	110 U	92 U	95 U	82 U	89 U	88 U
DIETHYL PHTHALATE	61000000	86000	NC	49000000	86000	FL-LEACH	110 U	93 U	96 U	84 U	90 U	89 U
DIMETHYL PHTHALATE	690000000	380000	NC	NC	380000	FL-LEACH	100 U	90 U	94 U	82 U	88 U	87 U
DI-N-BUTYL PHTHALATE	8200000	47000	NC	6100000	47000	FL-LEACH	140 U	120 U	120 U	100 U	110 U	110 U
DI-N-OCTYL PHTHALATE	1700000	480000000	NC	NC	1700000	FL-SCTL	290 U	240 U	250 U	220 U	240 U	240 U
HEXACHLOROBENZENE	400	2200	NC	300	300	RSL	110 U	95 U	99 U	86 U	93 U	92 U
HEXACHLOROBUTADIENE	6200	1000	NC	6200	1000	FL-LEACH	110 U	96 U	100 U	87 U	94 U	93 U
HEXACHLOROCYCLOPENTADIENE	9500	400000	NC	370000	9500	FL-SCTL	110 U	95 U	99 U	86 U	93 U	92 U
HEXACHLOROETHANE	38000	200	NC	12000	200	FL-LEACH	130 U	110 U	120 U	100 U	110 U	110 U
ISOPHORONE	540000	200	NC	510000	200	FL-LEACH	100 U	87 U	90 U	78 U	85 U	84 U
NITROBENZENE	18000	20	NC	4800	20	FL-LEACH	120 U	100 U	110 U	95 U	100 U	100 U
N-NITROSO-DI-N-PROPYLAMINE	80	0.05	NC	69	0.05	FL-LEACH	110 U	96 U	100 U	87 U	94 U	93 U
N-NITROSODIPHENYLAMINE	180000	400	NC	99000	400	FL-LEACH	300 U	250 U	260 U	230 U	250 U	240 U
PENTACHLOROPHENOL	7200	30	NC	890	30	FL-LEACH	320 U	270 U	280 U	250 U	270 U	260 U
PHENOL	500000	50	NC	18000000	50	FL-LEACH	210 U	180 U	190 U	160 U	180 U	170 U
VOLATILES (µg/kg)												
1,1,1-TRICHLOROETHANE	730000	1900	NC	8700000	1900	FL-LEACH	0.5 U	0.42 U	0.46 U	0.4 U	0.46 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	700	1	NC	560	1	FL-LEACH	1 U	0.84 U	0.92 U	0.81 U	0.92 U	1 U
1,1,2-TRICHLOROETHANE	1400	30	NC	1100	30	FL-LEACH	1.2 U	0.97 U	1.1 U	0.93 U	1.1 U	1.2 U
1,1,2-TRICHLOROTRIFLUOROETHANE	18000000	11000000	NC	43000000	11000000	FL-LEACH	1.1 U	0.9 U	0.99 U	0.86 U	0.99 U	1.1 U
1,1-DICHLOROETHANE	390000	400	NC	3300	400	FL-LEACH	2 U	1.7 U	1.9 U	1.6 U	1.9 U	2 U
1,1-DICHLOROETHENE	95000	60	NC	240000	60	FL-LEACH	1.1 U	0.93 U	1 U	0.89 U	1 U	1.1 U
1,2,4-TRICHLOROBENZENE	660000	5300	NC	22000	5300	FL-LEACH	0.95 U	0.79 U	0.87 U	0.76 U	0.87 U	0.95 U
1,2-DIBROMO-3-CHLOROPROPANE	700	1	NC	5.4	1	FL-LEACH	1.8 U	1.5 U	1.6 U	1.4 U	1.6 U	1.8 U
1,2-DIBROMOETHANE	100	0.1	NC	34	0.1	FL-LEACH	1.4 U	1.2 U	1.3 U	1.2 U	1.3 U	1.4 U

Table E-2
Summary of Phase II Soil Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB05	JAX45-SB06	JAX45-SB07	JAX45-SB08	JAX45-SB09	JAX45-SB10
SAMPLE IDENTIFICATION							JAX-45-SB05-SB-06242011	JAX-45-SB06-SB-06242011	JAX-45-SB07-SB-06242011	JAX-45-SB08-SB-06242011	JAX-45-SB09-SB-06242011	JAX-45-SB10-SB-06242011
SAMPLE DATE							20110623	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
VOLATILES (µg/kg)												
1,2-DICHLOROBENZENE	880000	17000	NC	1900000	17000	FL-LEACH	0.94 U	0.78 U	0.86 U	0.75 U	0.86 U	0.94 U
1,2-DICHLOROETHANE	500	10	NC	430	10	FL-LEACH	1.2 U	1 U	1.1 U	0.96 U	1.1 U	1.2 U
1,2-DICHLOROPROPANE	600	30	NC	940	30	FL-LEACH	1.7 U	1.4 U	1.5 U	1.3 U	1.5 U	1.7 U
1,3-DICHLOROBENZENE	380000	7000	NC	NC	7000	FL-LEACH	0.74 U	0.62 U	0.68 U	0.6 U	0.68 U	0.74 U
1,4-DICHLOROBENZENE	6400	2200	NC	2400	2200	FL-LEACH	0.53 U	0.44 U	0.48 U	0.42 U	0.48 U	0.53 U
2-BUTANONE	16000000	17000	NC	28000000	17000	FL-LEACH	7.1 U	5.9 U	6.5 U	5.7 U	6.5 U	7.1 U
2-HEXANONE	24000	1400	NC	210000	1400	FL-LEACH	5.8 U	4.8 U	5.3 U	4.6 U	5.3 U	5.8 U
4-METHYL-2-PENTANONE	4300000	2600	NC	5300000	2600	FL-LEACH	7.1 U	5.9 U	6.5 U	5.7 U	6.5 U	7.1 U
ACETONE	11000000	25000	NC	61000000	25000	FL-LEACH	33 U	14 U	10 U	9.1 U	9.9 U	12 U
BENZENE	1200	7	NC	1100	7	FL-LEACH	1.1 U	0.92 U	1 U	0.88 U	1 U	1.1 U
BROMODICHLOROMETHANE	1500	4	NC	270	4	FL-LEACH	0.72 U	0.6 U	0.66 U	0.58 U	0.66 U	0.72 U
BROMOFORM	48000	30	NC	62000	30	FL-LEACH	0.84 U	0.7 U	0.77 U	0.67 U	0.77 U	0.84 U
BROMOMETHANE	3100	50	NC	7300	50	FL-LEACH	1.3 U	1.1 U	1.2 U	1 U	1.2 U	1.3 U
CARBON DISULFIDE	270000	5600	NC	820000	5600	FL-LEACH	3 U	2.5 U	2.8 U	2.4 U	2.8 U	3 U
CARBON TETRACHLORIDE	500	40	NC	610	40	FL-LEACH	1.6 U	1.3 U	1.4 U	1.2 U	1.4 U	1.6 U
CHLOROBENZENE	120000	1300	NC	290000	1300	FL-LEACH	0.61 U	0.51 U	0.56 U	0.49 U	0.56 U	0.61 U
CHLORODIBROMOMETHANE	1500	3	NC	680	3	FL-LEACH	1.2 U	1 U	1.1 U	0.96 U	1.1 U	1.2 U
CHLOROETHANE	3900	60	NC	15000000	60	FL-LEACH	1.6 U	1.3 U	1.4 U	1.2 U	1.4 U	1.6 U
CHLOROFORM	400	400	NC	290	290	RSL	0.42 U	0.35 U	0.38 U	0.34 U	0.38 U	0.42 U
CHLOROMETHANE	4000	10	NC	120000	10	FL-LEACH	1.7 U	1.4 U	1.5 U	1.3 U	1.5 U	1.7 U
CIS-1,2-DICHLOROETHENE	33000	400	NC	160000	400	FL-LEACH	1.1 U	0.91 U	1 U	0.87 U	1 U	1.1 U
CIS-1,3-DICHLOROPROPENE	NC	NC	NC	1700	1700	RSL	0.86 U	0.72 U	0.79 U	0.69 U	0.79 U	0.86 U
CYCLOHEXANE	NC	NC	NC	7000000	7000000	RSL	1.7 U	1.4 U	1.5 U	1.3 U	1.5 U	1.7 U
DICHLORODIFLUOROMETHANE	77000	44000	NC	94000	44000	FL-LEACH	1.1 U	0.92 U	1 U	0.88 U	1 U	1.1 U
ETHYLBENZENE	1500000	600	NC	5400	600	FL-LEACH	0.78 U	0.65 U	0.72 U	0.62 U	0.72 U	0.78 U
ISOPROPYLBENZENE	220000	200	NC	2100000	200	FL-LEACH	1.1 U	0.92 U	1 U	0.88 U	1 U	1.1 U
METHYL ACETATE	6800000	16000	NC	78000000	16000	FL-LEACH	3.2 U	2.7 U	3 U	2.6 U	3 U	3.2 U
METHYL CYCLOHEXANE	NC	NC	NC	NC	NC	NC	1.2 U	0.96 U	1 U	0.92 U	1 U	1.2 U
METHYL TERT-BUTYL ETHER	4400000	90	NC	43000	90	FL-LEACH	1.3 U	1.1 U	1.2 U	1 U	1.2 U	1.3 U
METHYLENE CHLORIDE	17000	20	NC	11000	20	FL-LEACH	9.5 U	7.9 U	8.7 U	7.6 U	8.7 U	9.5 U
STYRENE	3600000	3600	NC	6300000	3600	FL-LEACH	0.61 U	0.51 U	0.56 U	0.49 U	0.56 U	0.61 U
TETRACHLOROETHENE	8800	30	NC	550	30	FL-LEACH	1.4 U	1.2 U	1.3 U	1.2 U	1.3 U	1.4 U
TOLUENE	7500000	500	NC	5000000	500	FL-LEACH	1.7 U	1.4 U	1.5 U	1.3 U	1.5 U	1.7 U
TOTAL XYLENES	130000	200	NC	630000	200	FL-LEACH	1.6 U	1.3 U	1.4 U	1.2 U	1.4 U	1.6 U
TRANS-1,2-DICHLOROETHENE	53000	700	NC	150000	700	FL-LEACH	0.85 U	0.71 U	0.78 U	0.68 U	0.78 U	0.85 U
TRANS-1,3-DICHLOROPROPENE	NC	NC	NC	1700	1700	RSL	1 U	0.86 U	0.95 U	0.82 U	0.95 U	1 U
TRICHLOROETHENE	6400	30	NC	910	30	FL-LEACH	0.71 U	0.59 U	0.65 U	0.57 U	0.65 U	0.71 U
TRICHLOROFLUOROMETHANE	270000	33000	NC	790000	33000	FL-LEACH	1.1 U	0.91 U	1 U	0.87 U	1 U	1.1 U
VINYL CHLORIDE	200	7	NC	60	7	FL-LEACH	1 U	0.87 U	0.96 U	0.84 U	0.96 U	1 U

Table E-2
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Naval Air Station Jacksonville
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LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB11	JAX45-SB12			JAX45-SB13	JAX45-SB14
SAMPLE IDENTIFICATION							JAX-45-SB11-SB-06242011	JAX-45-SB12-SB-06242011	JAX-45-SB12-SB-06242011-AVG	JAX-45-SB12-SB-06242011-D	JAX-45-SB13-SB-06242011	JAX-45-SB14-SB-06242011
SAMPLE DATE							20110624	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
METALS (mg/kg)												
ALUMINUM	80000	NC	6823.2	77000	77000	RSL	2690 J	1730 J	1209.5	689 J	4000 J	4070 J
ANTIMONY	27	5.4	NC	31	5.4	FL-LEACH	0.15 J	0.08 J	0.055	0.06 U	0.08 J	0.07 U
ARSENIC	2.1	NC	1.48	0.39	0.39	FL-SCTL	**0.59 J**	**0.81 J**	**0.745**	**0.68**	**0.58 J**	**0.8 J**
BARIUM	120	1600	20.8	15000	120	FL-SCTL	10.4 J	19.2 J	13.25	7.3 J	11 J	7.2 J
BERYLLIUM	120	63	0.49	160	63	FL-LEACH	0.12 J	0.15 J	0.08	0.02 U	0.09 J	0.06 J
CADMIUM	82	7.5	NC	70	7.5	FL-LEACH	0.26 J	**15.8 J**	**9.7**	3.6 J	1.2 J	0.14 J
CALCIUM	NC	NC	668.3	NC	668.3	BACK	**61000**	**8340**	**6680**	**5020**	**6550**	**987**
CHROMIUM	210	38	14.1	NC	38	FL-LEACH	5.5 J	28.9 J	15.75	2.6 J	6.7 J	4.5 J
COBALT	1700	NC	NC	23	23	RSL	0.35 J	1.3 J	0.7	0.1 J	0.39 J	0.17 J
COPPER	150	NC	NC	3100	150	FL-SCTL	3.9	24.4	25.1	25.8	5.2	4.2
IRON	53000	NC	5818.2	55000	53000	FL-SCTL	710 J	2320 J	1580	840 J	1010 J	1860 J
LEAD	400	NC	6.46	400	400	FL-SCTL	9.3 J	136 J	76.95	17.9 J	30.4 J	9.6 J
MAGNESIUM	NC	NC	500.25	NC	500.25	BACK	**743 J**	451 J	261.55	72.1 J	232 J	160 J
MANGANESE	3500	NC	6.9	1800	1800	RSL	23	70.7	62.15	53.6	17.9	13.8
MERCURY	3	2.1	NC	10	2.1	FL-LEACH	0.02 U	0.07	0.055	0.04	0.03 U	0.04 U
NICKEL	340	130	NC	1500	130	FL-LEACH	1.7 J	3.9 J	2.36	0.82 J	1.9 J	1.2 J
POTASSIUM	NC	NC	450.67	NC	450.67	BACK	137 U	100 U	62.9 U	25.8 U	101 U	90.1 U
SELENIUM	440	5.2	NC	390	5.2	FL-LEACH	0.17 U	0.18 U	0.16 U	0.14 U	0.13 U	0.18 U
SILVER	410	17	NC	390	17	FL-LEACH	0.03 U	0.08 J	0.045	0.02 U	0.03 J	0.07 J
SODIUM	NC	NC	343.1	NC	343.1	BACK	55.5 U	27.2 U	29.9 U	32.6 U	30.5 U	30.2 U
THALLIUM	6.1	2.8	NC	0.78	0.78	RSL	0.08 U	0.09 U	0.08 U	0.07 U	0.07 U	0.09 U
VANADIUM	67	980	NC	390	67	FL-SCTL	7	10	7	4	3.9	5.3
ZINC	26000	NC	14.49	23000	23000	RSL	21.2 J	623 J	368.5	114 J	42.3 J	12.9 J
MISCELLANEOUS PARAMETERS (%)												
TOTAL SOLIDS	NC	NC	NC	NC	NC	NC	83	93	93	93	80	86
PCBS (µg/kg)												
AROCLOR-1016	NC	NC	NC	3900	3900	RSL	7 U	5.9 U	6.15 U	6.4 U	7.2 U	6.4 U
AROCLOR-1221	NC	NC	NC	140	140	RSL	9.2 U	7.8 U	8.1 U	8.4 U	9.5 U	8.4 U
AROCLOR-1232	NC	NC	NC	140	140	RSL	11 U	9.2 U	9.55 U	9.9 U	11 U	10 U
AROCLOR-1242	NC	NC	NC	220	220	RSL	6.8 U	5.7 U	5.95 U	6.2 U	7 U	6.2 U
AROCLOR-1248	NC	NC	NC	220	220	RSL	7.1 U	6 U	6.25 U	6.5 U	7.3 U	6.5 U
AROCLOR-1254	NC	NC	NC	220	220	RSL	5.5 U	4.6 U	4.8 U	5 U	5.6 U	5 U
AROCLOR-1260	NC	NC	NC	220	220	RSL	7 U	5.9 U	6.15 U	6.4 U	7.2 U	6.4 U
TOTAL AROCLOR	500	17000	NC	220	220	RSL	0 U	0 U	0 U	0 U	0 U	0 U
PETROLEUM HYDROCARBONS (mg/kg)												
TPH (C08-C40)	460	340	NC	NC	340	FL-LEACH	72	230	210	190	200	30

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Remedial Investigation Report, PSC 45
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Jacksonville, Florida

LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB11	JAX45-SB12			JAX45-SB13	JAX45-SB14
SAMPLE IDENTIFICATION							JAX-45-SB11-SB-06242011	JAX-45-SB12-SB-06242011	JAX-45-SB12-SB-06242011-AVG	JAX-45-SB12-SB-06242011-D	JAX-45-SB13-SB-06242011	JAX-45-SB14-SB-06242011
SAMPLE DATE							20110624	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
POLYCYCLIC AROMATIC HYDROCARBONS (µg/kg)												
1-METHYLNAPHTHALENE	200000	3100	NC	22000	3100	FL-LEACH	7.2 J	5.9 J	4.75	3.6 J	3.2 J	2 U
2-METHYLNAPHTHALENE	210000	8500	NC	310000	8500	FL-LEACH	3.5 J	5.7 J	4.15	2.6 J	3 J	2.5 U
ACENAPHTHENE	2400000	2100	NC	3400000	2100	FL-LEACH	37	18 J	15.5	13 J	8.7 J	1.7 U
ACENAPHTHYLENE	1800000	27000	NC	3400000	27000	FL-LEACH	1.4 U	2.3 J	2.55	2.8 J	3.8 J	1.4 U
ANTHRACENE	21000000	2500000	NC	17000000	2500000	FL-LEACH	74	13 J	15.5	18 J	7.9 J	1.4 U
BAP EQUIVALENT-HALFND	100	NC	NC	15	15	RSL	**248.08**	**165.82**	**173.315**	**180.81**	**145.379**	7.6714
BENZO(A)ANTHRACENE	NC	800	NC	150	150	RSL	**230**	82	96	110	72 J	2.5 J
BENZO(A)PYRENE	100	8000	NC	15	15	RSL	**160**	**110**	**115**	**120**	**93 J**	5 J
BENZO(B)FLUORANTHENE	NC	2400	NC	150	150	RSL	**260**	**190**	**190**	**190**	**160 J**	6.9 J
BENZO(G,H,I)PERYLENE	2500000	32000000	NC	1700000	1700000	RSL	67	67	68.5	70	78 J	5.4 J
BENZO(K)FLUORANTHENE	NC	24000	NC	1500	1500	RSL	88	60	64.5	69	49	3.6 U
CHRYSENE	NC	77000	NC	15000	15000	RSL	200	120	120	120	89 J	3.4 J
DIBENZO(A,H)ANTHRACENE	NC	700	NC	15	15	RSL	**26**	**18 J**	**19**	**20 J**	**19 J**	2.1 U
FLUORANTHENE	3200000	1200000	NC	2300000	1200000	FL-LEACH	660	250	275	300	150 J	5.5 J
FLUORENE	2600000	160000	NC	2300000	160000	FL-LEACH	27	14 J	11.35	8.7 J	6 J	3.7 U
INDENO(1,2,3-CD)PYRENE	NC	6600	NC	150	150	RSL	120 J	99 J	99.5	100 J	96 J	6.6 J
NAPHTHALENE	55000	1200	NC	3600	1200	FL-LEACH	3 U	13 J	8	3 J	4 J	3 U
PHENANTHRENE	2200000	250000	NC	1700000	250000	FL-LEACH	360 J	160	145	130	76 J	2.2 J
PYRENE	2400000	880000	NC	1700000	880000	FL-LEACH	350 J	160	180	200	120 J	3.9 J
SEMIVOLATILES (µg/kg)												
1,1-BIPHENYL	3000000	200	NC	51000	200	FL-LEACH	85 U	78 U	76 U	74 U	86 U	85 U
2,2'-OXYBIS(1-CHLOROPROPANE)	6000	9	NC	4600	9	FL-LEACH	100 UJ	95 UJ	92.5 U	90 UJ	100 UJ	100 UJ
2,4,5-TRICHLOROPHENOL	7700000	70	NC	6100000	70	FL-LEACH	180 U	170 U	165 U	160 U	180 U	180 U
2,4,6-TRICHLOROPHENOL	70000	60	NC	44000	60	FL-LEACH	180 U	170 U	165 U	160 U	180 U	180 U
2,4-DICHLOROPHENOL	190000	3	NC	180000	3	FL-LEACH	180 U	160 U	155 U	150 U	180 U	170 U
2,4-DIMETHYLPHENOL	1300000	1700	NC	1200000	1700	FL-LEACH	190 U	180 U	175 U	170 U	200 U	190 U
2,4-DINITROPHENOL	110000	60	NC	120000	60	FL-LEACH	440 U	400 U	390 U	380 U	450 U	440 U
2,4-DINITROTOLUENE	1200	0.4	NC	1600	0.4	FL-LEACH	99 U	91 U	88.5 U	86 U	100 U	98 U
2,6-DINITROTOLUENE	1200	0.4	NC	61000	0.4	FL-LEACH	92 U	85 U	82.5 U	80 U	94 U	92 U
2-CHLORONAPHTHALENE	5000000	260000	NC	6300000	260000	FL-LEACH	100 U	93 U	90.5 U	88 U	100 U	100 U
2-CHLOROPHENOL	130000	700	NC	390000	700	FL-LEACH	190 U	180 U	170 U	160 U	190 U	190 U
2-METHYLPHENOL	2900000	300	NC	3100000	300	FL-LEACH	230 U	210 U	205 U	200 U	240 U	230 U
2-NITROANILINE	24000	100	NC	610000	100	FL-LEACH	88 U	80 U	78 U	76 U	89 U	87 U
2-NITROPHENOL	NC	NC	NC	NC	NC	NC	190 U	180 U	175 U	170 U	200 U	190 U
3&4-METHYLPHENOL	NC	NC	NC	NC	NC	NC	220 U	200 U	195 U	190 U	220 U	220 U
3,3'-DICHLOROBENZIDINE	2100	3	NC	1100	3	FL-LEACH	130 U	120 U	115 U	110 U	140 U	130 U
3-NITROANILINE	21000	10	NC	NC	10	FL-LEACH	110 U	100 U	97.5 U	95 U	110 U	110 U
4,6-DINITRO-2-METHYLPHENOL	8400	400	NC	4900	400	FL-LEACH	390 U	360 U	350 U	340 U	400 U	390 U
4-BROMOPHENYL PHENYL ETHER	NC	NC	NC	NC	NC	NC	99 U	91 U	88.5 U	86 U	100 U	98 U

Table E-2
Summary of Phase II Soil Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB11	JAX45-SB12			JAX45-SB13	JAX45-SB14
SAMPLE IDENTIFICATION							JAX-45-SB11-SB-06242011	JAX-45-SB12-SB-06242011	JAX-45-SB12-SB-06242011-AVG	JAX-45-SB12-SB-06242011-D	JAX-45-SB13-SB-06242011	JAX-45-SB14-SB-06242011
SAMPLE DATE							20110624	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
SEMIVOLATILES (µg/kg)												
4-CHLORO-3-METHYLPHENOL	600000	400	NC	6100000	400	FL-LEACH	190 U	180 U	175 U	170 U	200 U	190 U
4-CHLOROANILINE	270000	200	NC	2400	200	FL-LEACH	140 U	130 U	125 U	120 U	140 U	140 U
4-CHLOROPHENYL PHENYL ETHER	NC	NC	NC	NC	NC	NC	91 U	84 U	81 U	78 U	92 U	90 U
4-NITROANILINE	17000	8	NC	24000	8	FL-LEACH	160 U	140 U	135 U	130 U	160 U	160 U
4-NITROPHENOL	560000	300	NC	NC	300	FL-LEACH	360 U	330 U	320 U	310 U	370 U	360 U
ACETOPHENONE	3900000	3900	NC	7800000	3900	FL-LEACH	210 U	190 U	185 U	180 U	210 U	210 U
ATRAZINE	4300	60	NC	2100	60	FL-LEACH	110 U	98 U	95 U	92 U	110 U	100 U
BENZALDEHYDE	3300000	4800	NC	7800000	4800	FL-LEACH	140 U	130 UJ	125 U	120 UJ	140 UJ	140 U
BIS(2-CHLOROETHOXY)METHANE	250000	63000	NC	180000	63000	FL-LEACH	110 U	100 U	98.5 U	97 U	110 U	110 U
BIS(2-CHLOROETHYL)ETHER	300	0.1	NC	210	0.1	FL-LEACH	94 U	87 U	84.5 U	82 U	96 U	94 U
BIS(2-ETHYLHEXYL)PHTHALATE	72000	3600000	NC	35000	35000	RSL	220 J	100 U	140	230 J	120 U	110 U
BUTYL BENZYL PHTHALATE	17000000	310000	NC	260000	260000	RSL	110 U	100 U	97 U	94 U	110 U	110 U
CAPROLACTAM	NC	NC	NC	31000000	31000000	RSL	170 U	150 U	145 U	140 U	170 U	170 U
CARBAZOLE	49000	200	NC	NC	200	FL-LEACH	130 U	120 U	115 U	110 U	130 U	130 U
DIBENZOFURAN	320000	15000	NC	78000	15000	FL-LEACH	92 U	85 U	82.5 U	80 U	94 U	92 U
DIETHYL PHTHALATE	61000000	86000	NC	49000000	86000	FL-LEACH	93 U	86 U	83 U	80 U	95 U	93 U
DIMETHYL PHTHALATE	690000000	380000	NC	NC	380000	FL-LEACH	91 U	84 U	81 U	78 U	92 U	90 U
DI-N-BUTYL PHTHALATE	8200000	47000	NC	6100000	47000	FL-LEACH	120 U	110 U	105 U	100 U	120 U	120 U
DI-N-OCTYL PHTHALATE	1700000	480000000	NC	NC	1700000	FL-SCTL	250 U	230 U	220 U	210 U	250 U	240 U
HEXACHLOROBENZENE	400	2200	NC	300	300	RSL	96 U	88 U	85 U	82 U	97 U	95 U
HEXACHLOROBUTADIENE	6200	1000	NC	6200	1000	FL-LEACH	97 U	89 U	86.5 U	84 U	98 U	96 U
HEXACHLOROCYCLOPENTADIENE	9500	400000	NC	370000	9500	FL-SCTL	96 U	88 U	85 U	82 U	97 U	95 U
HEXACHLOROETHANE	38000	200	NC	12000	200	FL-LEACH	110 U	100 U	98.5 U	97 U	110 U	110 U
ISOPHORONE	540000	200	NC	510000	200	FL-LEACH	88 U	80 U	78 U	76 U	89 U	87 U
NITROBENZENE	18000	20	NC	4800	20	FL-LEACH	110 U	98 U	95 U	92 U	110 U	100 U
N-NITROSO-DI-N-PROPYLAMINE	80	0.05	NC	69	0.05	FL-LEACH	97 U	89 UJ	86.5 U	84 UJ	98 UJ	96 U
N-NITROSODIPHENYLAMINE	180000	400	NC	99000	400	FL-LEACH	260 U	230 U	225 U	220 U	260 U	250 U
PENTACHLOROPHENOL	7200	30	NC	890	30	FL-LEACH	280 U	250 U	245 U	240 U	280 U	270 U
PHENOL	500000	50	NC	18000000	50	FL-LEACH	180 U	170 U	165 U	160 U	180 U	180 U
VOLATILES (µg/kg)												
1,1,1-TRICHLOROETHANE	730000	1900	NC	8700000	1900	FL-LEACH	0.5 U	0.42 U	0.44 U	0.46 U	0.5 U	0.42 U
1,1,2,2-TETRACHLOROETHANE	700	1	NC	560	1	FL-LEACH	1 U	0.83 U	0.875 U	0.92 U	1 U	0.84 U
1,1,2-TRICHLOROETHANE	1400	30	NC	1100	30	FL-LEACH	1.2 U	0.96 U	1.03 U	1.1 U	1.2 U	0.97 U
1,1,2-TRICHLOROTRIFLUOROETHANE	18000000	11000000	NC	43000000	11000000	FL-LEACH	1.1 U	0.89 U	0.94 U	0.99 U	1.1 U	0.9 U
1,1-DICHLOROETHANE	390000	400	NC	3300	400	FL-LEACH	2 U	1.7 U	1.8 U	1.9 U	2 U	1.7 U
1,1-DICHLOROETHENE	95000	60	NC	240000	60	FL-LEACH	1.1 U	0.92 U	0.96 U	1 U	1.1 U	0.93 U
1,2,4-TRICHLOROBENZENE	660000	5300	NC	22000	5300	FL-LEACH	0.95 U	0.78 U	0.825 U	0.87 U	0.95 U	0.79 U
1,2-DIBROMO-3-CHLOROPROPANE	700	1	NC	5.4	1	FL-LEACH	1.8 U	1.5 U	1.55 U	1.6 U	1.8 U	1.5 U
1,2-DIBROMOETHANE	100	0.1	NC	34	0.1	FL-LEACH	1.4 U	1.2 U	1.25 U	1.3 U	1.4 U	1.2 U

Table E-2
Summary of Phase II Soil Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	Florida Residential SCTL	Florida Leachability SCTL	Background	USEPA Residential RSL	PAL	PAL Source	JAX45-SB11	JAX45-SB12			JAX45-SB13	JAX45-SB14
SAMPLE IDENTIFICATION							JAX-45-SB11-SB-06242011	JAX-45-SB12-SB-06242011	JAX-45-SB12-SB-06242011-AVG	JAX-45-SB12-SB-06242011-D	JAX-45-SB13-SB-06242011	JAX-45-SB14-SB-06242011
SAMPLE DATE							20110624	20110624	20110624	20110624	20110624	20110624
TOP DEPTH							0.5	0.5	0.5	0.5	0.5	0.5
BOTTOM DEPTH							2.5	2.5	2.5	2.5	2.5	2.5
VOLATILES (µg/kg)												
1,2-DICHLOROBENZENE	880000	17000	NC	1900000	17000	FL-LEACH	0.94 U	0.77 U	0.815 U	0.86 U	0.94 U	0.78 U
1,2-DICHLOROETHANE	500	10	NC	430	10	FL-LEACH	1.2 U	0.99 U	1.045 U	1.1 U	1.2 U	1 U
1,2-DICHLOROPROPANE	600	30	NC	940	30	FL-LEACH	1.7 U	1.4 U	1.45 U	1.5 U	1.7 U	1.4 U
1,3-DICHLOROBENZENE	380000	7000	NC	NC	7000	FL-LEACH	0.74 U	0.61 U	0.645 U	0.68 U	0.74 U	0.62 U
1,4-DICHLOROBENZENE	6400	2200	NC	2400	2200	FL-LEACH	0.53 U	0.44 U	0.46 U	0.48 U	0.53 U	0.44 U
2-BUTANONE	16000000	17000	NC	28000000	17000	FL-LEACH	7.1 U	5.8 U	6.15 U	6.5 U	7.1 U	5.9 U
2-HEXANONE	24000	1400	NC	210000	1400	FL-LEACH	5.8 U	4.8 U	5.05 U	5.3 U	5.8 U	4.8 U
4-METHYL-2-PENTANONE	4300000	2600	NC	5300000	2600	FL-LEACH	7.1 U	5.8 U	6.15 U	6.5 U	7.1 U	5.9 U
ACETONE	11000000	25000	NC	61000000	25000	FL-LEACH	12 U	8.1 U	8.9 U	9.7 U	9.6 U	8.8 U
BENZENE	1200	7	NC	1100	7	FL-LEACH	1.1 U	0.91 U	0.955 U	1 U	1.1 U	0.92 U
BROMODICHLOROMETHANE	1500	4	NC	270	4	FL-LEACH	0.72 U	0.59 U	0.625 U	0.66 U	0.72 U	0.6 U
BROMOFORM	48000	30	NC	62000	30	FL-LEACH	0.84 U	0.69 U	0.73 U	0.77 U	0.84 U	0.7 U
BROMOMETHANE	3100	50	NC	7300	50	FL-LEACH	1.3 U	1.1 U	1.15 U	1.2 U	1.3 U	1.1 U
CARBON DISULFIDE	270000	5600	NC	820000	5600	FL-LEACH	3 U	2.5 U	2.65 U	2.8 U	3 U	2.5 U
CARBON TETRACHLORIDE	500	40	NC	610	40	FL-LEACH	1.6 U	1.3 U	1.35 U	1.4 U	1.6 U	1.3 U
CHLOROBENZENE	120000	1300	NC	290000	1300	FL-LEACH	0.61 U	0.5 U	0.53 U	0.56 U	0.61 U	0.51 U
CHLORODIBROMOMETHANE	1500	3	NC	680	3	FL-LEACH	1.2 U	0.99 U	1.045 U	1.1 U	1.2 U	1 U
CHLOROETHANE	3900	60	NC	15000000	60	FL-LEACH	1.6 U	1.3 U	1.35 U	1.4 U	1.6 U	1.3 U
CHLOROFORM	400	400	NC	290	290	RSL	0.42 U	0.35 U	0.365 U	0.38 U	0.42 U	0.35 U
CHLOROMETHANE	4000	10	NC	120000	10	FL-LEACH	1.7 U	1.4 U	1.45 U	1.5 U	1.7 U	1.4 U
CIS-1,2-DICHLOROETHENE	33000	400	NC	160000	400	FL-LEACH	1.1 U	0.9 U	0.95 U	1 U	1.1 U	0.91 U
CIS-1,3-DICHLOROPROPENE	NC	NC	NC	1700	1700	RSL	0.86 U	0.71 U	0.75 U	0.79 U	0.86 U	0.72 U
CYCLOHEXANE	NC	NC	NC	7000000	7000000	RSL	1.7 U	1.4 U	1.45 U	1.5 U	1.7 U	1.4 U
DICHLORODIFLUOROMETHANE	77000	44000	NC	94000	44000	FL-LEACH	1.1 U	0.91 U	0.955 U	1 U	1.1 U	0.92 U
ETHYLBENZENE	1500000	600	NC	5400	600	FL-LEACH	0.78 U	0.64 U	0.68 U	0.72 U	0.78 U	0.65 U
ISOPROPYLBENZENE	220000	200	NC	2100000	200	FL-LEACH	1.1 U	0.91 U	0.955 U	1 U	1.1 U	0.92 U
METHYL ACETATE	6800000	16000	NC	78000000	16000	FL-LEACH	3.2 U	2.7 U	2.85 U	3 U	3.2 U	2.7 U
METHYL CYCLOHEXANE	NC	NC	NC	NC	NC	NC	1.2 U	0.95 U	0.975 U	1 U	1.2 U	0.96 U
METHYL TERT-BUTYL ETHER	4400000	90	NC	43000	90	FL-LEACH	1.3 U	1.1 U	1.15 U	1.2 U	1.3 U	1.1 U
METHYLENE CHLORIDE	17000	20	NC	11000	20	FL-LEACH	9.5 U	7.8 U	8.25 U	8.7 U	9.5 U	7.9 U
STYRENE	3600000	3600	NC	6300000	3600	FL-LEACH	0.61 U	0.5 U	0.53 U	0.56 U	0.61 U	0.51 U
TETRACHLOROETHENE	8800	30	NC	550	30	FL-LEACH	7.2	2.6 J	2.35	2.1 J	3.5 J	1.2 U
TOLUENE	7500000	500	NC	5000000	500	FL-LEACH	1.7 U	1.4 U	1.45 U	1.5 U	1.7 U	1.4 U
TOTAL XYLENES	130000	200	NC	630000	200	FL-LEACH	1.6 U	1.3 U	1.35 U	1.4 U	1.6 U	1.3 U
TRANS-1,2-DICHLOROETHENE	53000	700	NC	150000	700	FL-LEACH	0.85 U	0.7 U	0.74 U	0.78 U	0.85 U	0.71 U
TRANS-1,3-DICHLOROPROPENE	NC	NC	NC	1700	1700	RSL	1 U	0.85 U	0.9 U	0.95 U	1 U	0.86 U
TRICHLOROETHENE	6400	30	NC	910	30	FL-LEACH	0.71 U	0.58 U	0.615 U	0.65 U	0.71 U	0.59 U
TRICHLOROFLUOROMETHANE	270000	33000	NC	790000	33000	FL-LEACH	1.1 U	0.9 U	0.95 U	1 U	1.1 U	0.91 U
VINYL CHLORIDE	200	7	NC	60	7	FL-LEACH	1 U	0.86 U	0.91 U	0.96 U	1 U	0.87 U

Table E-3
Summary of Phase II Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT12				JAX45-DPT13				JAX45-DPT14
SAMPLE IDENTIFICATION					JAX-45-DPT12-12-06202011	JAX-45-DPT12-20-06202011	JAX-45-DPT12-40-06202011	JAX-45-DPT12-60-06202011	JAX-45-DPT13-12-06202011	JAX-45-DPT13-20-06202011	JAX-45-DPT13-40-06202011	JAX-45-DPT13-60-06202011	JAX-45-DPT14-12-06202011
SAMPLE DATE					20110620	20110620	20110620	20110620	20110620	20110620	20110620	20110620	20110620
VOLATILES (UG/L)													
1,1,1-TRICHLOROETHANE	200	GCTL	200	7500	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-TETRACHLOROETHANE	0.066	RSL	0.2	0.066	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,1,2-TRICHLOROETHANE	0.24	RSL	5	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	RSL	210000	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	RSL	70	2.4	**7.9**	**4.2**	**6.8**	0.21 U	**4.2**	2	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	GCTL	7	260	**56**	**40**	**67**	0.35 U	6.5	3.2	0.44 J	0.35 U	0.35 U
1,2,4-TRICHLOROBENZENE	0.99	RSL	70	0.99	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2-DIBROMO-3-CHLOROPROPANE	0.00032	RSL	0.2	0.00032	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.0065	RSL	0.02	0.0065	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROBENZENE	280	RSL	600	280	0.15 U	0.15 U	0.15 U	0.15 U	0.36 J	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	RSL	3	0.15	**47**	**37**	**65**	0.2 U	**3.2**	**1.6**	0.2 U	0.2 U	0.2 U
1,2-DICHLOROPROPANE	0.38	RSL	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	210	GCTL	210	NC	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,4-DICHLOROBENZENE	0.42	RSL	75	0.42	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
2-BUTANONE	4200	GCTL	4200	4900	1.3 U	1.3 U	1.3 U	1.3 U	1.3 UJ	1.3 U	1.3 U	1.3 U	1.3 U
2-HEXANONE	34	RSL	280	34	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
4-METHYL-2-PENTANONE	560	GCTL	560	1000	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	GCTL	6300	12000	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	3.3 J	2.2 UJ	2.2 UJ	2.2 UJ
BENZENE	0.39	RSL	1	0.39	0.34 J	**0.76 J**	0.36 J	0.26 U	**0.41 J**	0.32 J	0.26 U	0.26 U	0.26 U
BROMODICHLOROMETHANE	0.12	RSL	0.6	0.12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
BROMOFORM	4.4	GCTL	4.4	7.9	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
BROMOMETHANE	7	RSL	9.8	7	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
CARBON DISULFIDE	700	GCTL	700	720	0.38 J	0.25 U	0.35 J	0.25 U	0.56 J	0.46 J	2.8	0.42 J	0.25 U
CARBON TETRACHLORIDE	0.39	RSL	3	0.39	0.22 U	0.22 U	0.22 U	0.22 U	**0.95 J**	**54**	**860**	0.22 U	0.22 U
CHLOROBENZENE	72	RSL	100	72	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLORODIBROMOMETHANE	0.15	RSL	0.4	0.15	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	12	GCTL	12	21000	0.55 U	0.55 U	0.55 U	0.55 U	0.55 UJ	0.55 U	0.55 U	0.55 U	0.55 U
CHLOROFORM	0.19	RSL	70	0.19	0.32 U	0.32 U	0.32 U	0.32 U	**5.8**	**500**	**900**	**2.8**	0.32 U
CHLOROMETHANE	2.7	GCTL	2.7	190	0.36 U	0.36 U	0.36 U	0.36 U	0.62 J	0.36 U	0.36 U	0.36 U	0.36 U
CIS-1,2-DICHLOROETHENE	28	RSL	70	28	**150**	**46**	**34**	0.21 U	**43**	21	0.21 U	0.36 J	0.53 J
CIS-1,3-DICHLOROPROPENE	0.41	RSL	NC	0.41	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
CYCLOHEXANE	13000	RSL	NC	13000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DICHLORODIFLUOROMETHANE	190	RSL	1400	190	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
ETHYLBENZENE	1.3	RSL	30	1.3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	GCTL	0.8	390	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
METHYL ACETATE	3000	GCTL	3000	16000	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
METHYL CYCLOHEXANE	NC	GCTL	NC	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 J	0.3 U	0.3 U
METHYL TERT-BUTYL ETHER	12	RSL	20	12	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
METHYLENE CHLORIDE	4.7	RSL	5	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.7 J	**6.1**	1.1 U	1.1 U
STYRENE	100	GCTL	100	1100	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.072	RSL	3	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	**5.4**	**13**	0.4 U	0.4 U

Table E-3
Summary of Phase II Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT12				JAX45-DPT13				JAX45-DPT14
SAMPLE IDENTIFICATION					JAX-45-DPT12-12-06202011	JAX-45-DPT12-20-06202011	JAX-45-DPT12-40-06202011	JAX-45-DPT12-60-06202011	JAX-45-DPT13-12-06202011	JAX-45-DPT13-20-06202011	JAX-45-DPT13-40-06202011	JAX-45-DPT13-60-06202011	JAX-45-DPT14-12-06202011
SAMPLE DATE					20110620	20110620	20110620	20110620	20110620	20110620	20110620	20110620	20110620
VOLATILES (UG/L)													
TOLUENE	40	GCTL	40	860	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	1.3	4.6	0.27 U	0.27 U
TOTAL XYLENES	20	GCTL	20	190	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	6.2	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	RSL	100	86	7.7	0.64 J	0.25 U	0.25 U	4.2	1.4	0.25 U	0.25 U	0.25 U
TRANS-1,3-DICHLOROPROPENE	NC	GCTL	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TRICHLOROETHENE	0.44	RSL	3	0.44	**4.7**	**21**	**46**	0.28 U	**24**	**11**	0.4 J	0.28 U	0.28 U
TRICHLOROFLUOROMETHANE	1100	RSL	2100	1100	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
VINYL CHLORIDE	0.015	RSL	1	0.015	**5.5**	**1.1 J**	**0.54 J**	0.25 U	**2.9**	**1.2 J**	0.25 U	0.25 U	0.25 U

Table E-3
Summary of Phase II Groundwater Analytical Results

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LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT14					JAX45-DPT15			
SAMPLE IDENTIFICATION					JAX-45-DPT14-12-06202011-AVG	JAX-45-DPT14-12-06202011-D	JAX-45-DPT14-20-06202011	JAX-45-DPT14-40-06202011	JAX-45-DPT14-60-06202011	JAX-45-DPT15-12-06202111	JAX-45-DPT15-20-06202111	JAX-45-DPT15-40-06202111	JAX-45-DPT15-60-06202111
SAMPLE DATE					20110620	20110620	20110620	20110620	20110620	20110621	20110621	20110621	20110621
VOLATILES (UG/L)													
1,1,1-TRICHLOROETHANE	200	GCTL	200	7500	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-TETRACHLOROETHANE	0.066	RSL	0.2	0.066	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,1,2-TRICHLOROETHANE	0.24	RSL	5	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	RSL	210000	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	RSL	70	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	GCTL	7	260	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,4-TRICHLOROBENZENE	0.99	RSL	70	0.99	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2-DIBROMO-3-CHLOROPROPANE	0.00032	RSL	0.2	0.00032	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.0065	RSL	0.02	0.0065	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROBENZENE	280	RSL	600	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	RSL	3	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-DICHLOROPROPANE	0.38	RSL	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	210	GCTL	210	NC	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,4-DICHLOROBENZENE	0.42	RSL	75	0.42	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
2-BUTANONE	4200	GCTL	4200	4900	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 UJ	1.3 UJ	6.6 J	1.3 UJ
2-HEXANONE	34	RSL	280	34	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
4-METHYL-2-PENTANONE	560	GCTL	560	1000	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	GCTL	6300	12000	2.2 UJ	2.2 UJ	2.8 J	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	3.7 J	2.2 UJ
BENZENE	0.39	RSL	1	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
BROMODICHLOROMETHANE	0.12	RSL	0.6	0.12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
BROMOFORM	4.4	GCTL	4.4	7.9	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
BROMOMETHANE	7	RSL	9.8	7	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
CARBON DISULFIDE	700	GCTL	700	720	0.25 U	0.31 J	0.41 J	0.25 U	0.25 U	0.25 U	0.65 J	0.25 U	0.25 U
CARBON TETRACHLORIDE	0.39	RSL	3	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.31 J	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROBENZENE	72	RSL	100	72	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLORODIBROMOMETHANE	0.15	RSL	0.4	0.15	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	12	GCTL	12	21000	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ
CHLOROFORM	0.19	RSL	70	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	GCTL	2.7	190	0.36 U	0.52 J	0.44 J	1.1 J	1.1 J	0.36 U	0.46 J	0.36 U	0.43 J
CIS-1,2-DICHLOROETHENE	28	RSL	70	28	0.53 J	0.55 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
CIS-1,3-DICHLOROPROPENE	0.41	RSL	NC	0.41	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
CYCLOHEXANE	13000	RSL	NC	13000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DICHLORODIFLUOROMETHANE	190	RSL	1400	190	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
ETHYLBENZENE	1.3	RSL	30	1.3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	GCTL	0.8	390	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
METHYL ACETATE	3000	GCTL	3000	16000	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
METHYL CYCLOHEXANE	NC	GCTL	NC	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
METHYL TERT-BUTYL ETHER	12	RSL	20	12	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
METHYLENE CHLORIDE	4.7	RSL	5	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
STYRENE	100	GCTL	100	1100	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.072	RSL	3	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

Table E-3
Summary of Phase II Groundwater Analytical Results

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Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT14					JAX45-DPT15			
SAMPLE IDENTIFICATION					JAX-45-DPT14-12-06202011-AVG	JAX-45-DPT14-12-06202011-D	JAX-45-DPT14-20-06202011	JAX-45-DPT14-40-06202011	JAX-45-DPT14-60-06202011	JAX-45-DPT15-12-06202111	JAX-45-DPT15-20-06202111	JAX-45-DPT15-40-06202111	JAX-45-DPT15-60-06202111
SAMPLE DATE					20110620	20110620	20110620	20110620	20110620	20110621	20110621	20110621	20110621
VOLATILES (UG/L)													
TOLUENE	40	GCTL	40	860	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	20	GCTL	20	190	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	RSL	100	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,3-DICHLOROPROPENE	NC	GCTL	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TRICHLOROETHENE	0.44	RSL	3	0.44	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
TRICHLOROFLUOROMETHANE	1100	RSL	2100	1100	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
VINYL CHLORIDE	0.015	RSL	1	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Table E-3
Summary of Phase II Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT16				JAX45-DPT17				JAX45-DPT18
SAMPLE IDENTIFICATION					JAX-45-DPT16-12-06202111	JAX-45-DPT16-20-06202111	JAX-45-DPT16-40-06202111	JAX-45-DPT16-60-06202111	JAX-45-DPT17-12-06202111	JAX-45-DPT17-20-06202111	JAX-45-DPT17-40-06202111	JAX-45-DPT17-60-06202111	JAX-45-DPT18-12-06202111
SAMPLE DATE					20110621	20110621	20110621	20110621	20110621	20110621	20110621	20110621	20110621
VOLATILES (UG/L)													
1,1,1-TRICHLOROETHANE	200	GCTL	200	7500	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-TETRACHLOROETHANE	0.066	RSL	0.2	0.066	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,1,2-TRICHLOROETHANE	0.24	RSL	5	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	RSL	210000	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	RSL	70	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	GCTL	7	260	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	3	0.35 U	0.35 U	0.35 U
1,2,4-TRICHLOROBENZENE	0.99	RSL	70	0.99	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2-DIBROMO-3-CHLOROPROPANE	0.00032	RSL	0.2	0.00032	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.0065	RSL	0.02	0.0065	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROBENZENE	280	RSL	600	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	RSL	3	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-DICHLOROPROPANE	0.38	RSL	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	210	GCTL	210	NC	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,4-DICHLOROBENZENE	0.42	RSL	75	0.42	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
2-BUTANONE	4200	GCTL	4200	4900	1.3 UJ	1.3 UJ	6.5 J	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ
2-HEXANONE	34	RSL	280	34	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
4-METHYL-2-PENTANONE	560	GCTL	560	1000	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	GCTL	6300	12000	2.7 J	2.2 UJ	3.3 J	2.2 UJ	2.2 UJ	2.2 UJ	2.8 J	2.2 UJ	4.2 J
BENZENE	0.39	RSL	1	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
BROMODICHLOROMETHANE	0.12	RSL	0.6	0.12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
BROMOFORM	4.4	GCTL	4.4	7.9	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
BROMOMETHANE	7	RSL	9.8	7	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
CARBON DISULFIDE	700	GCTL	700	720	0.25 U	0.54 J	0.43 J	0.35 J	0.78 J	0.44 J	0.25 U	0.42 J	1.9
CARBON TETRACHLORIDE	0.39	RSL	3	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROBENZENE	72	RSL	100	72	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLORODIBROMOMETHANE	0.15	RSL	0.4	0.15	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	12	GCTL	12	21000	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ
CHLOROFORM	0.19	RSL	70	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	GCTL	2.7	190	0.4 J	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	1.1 J	0.6 J	0.36 U
CIS-1,2-DICHLOROETHENE	28	RSL	70	28	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
CIS-1,3-DICHLOROPROPENE	0.41	RSL	NC	0.41	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
CYCLOHEXANE	13000	RSL	NC	13000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
DICHLORODIFLUOROMETHANE	190	RSL	1400	190	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
ETHYLBENZENE	1.3	RSL	30	1.3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	GCTL	0.8	390	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
METHYL ACETATE	3000	GCTL	3000	16000	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
METHYL CYCLOHEXANE	NC	GCTL	NC	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
METHYL TERT-BUTYL ETHER	12	RSL	20	12	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
METHYLENE CHLORIDE	4.7	RSL	5	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
STYRENE	100	GCTL	100	1100	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.072	RSL	3	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

Table E-3
Summary of Phase II Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT16				JAX45-DPT17				JAX45-DPT18
SAMPLE IDENTIFICATION					JAX-45-DPT16-12-06202111	JAX-45-DPT16-20-06202111	JAX-45-DPT16-40-06202111	JAX-45-DPT16-60-06202111	JAX-45-DPT17-12-06202111	JAX-45-DPT17-20-06202111	JAX-45-DPT17-40-06202111	JAX-45-DPT17-60-06202111	JAX-45-DPT18-12-06202111
SAMPLE DATE					20110621	20110621	20110621	20110621	20110621	20110621	20110621	20110621	20110621
VOLATILES (UG/L)													
TOLUENE	40	GCTL	40	860	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	20	GCTL	20	190	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	RSL	100	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,3-DICHLOROPROPENE	NC	GCTL	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TRICHLOROETHENE	0.44	RSL	3	0.44	0.28 U	0.33 J	0.28 U	0.28 U	**0.71 J**	**8**	0.28 U	0.28 U	0.28 U
TRICHLOROFLUOROMETHANE	1100	RSL	2100	1100	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
VINYL CHLORIDE	0.015	RSL	1	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Table E-3
Summary of Phase II Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT18					JAX45-DPT19			
SAMPLE IDENTIFICATION					JAX-45-DPT18-20-06202111	JAX-45-DPT18-40-06202111	JAX-45-DPT18-40-06202111-AVG	JAX-45-DPT18-40-06202111-D	JAX-45-DPT18-60-06202111	JAX-45-DPT19-12-06222011	JAX-45-DPT19-20-06222011	JAX-45-DPT19-40-06222011	JAX-45-DPT19-40-06222011-AVG
SAMPLE DATE					20110621	20110621	20110621	20110621	20110621	20110622	20110622	20110622	20110622
VOLATILES (UG/L)													
1,1,1-TRICHLOROETHANE	200	GCTL	200	7500	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U
1,1,2,2-TETRACHLOROETHANE	0.066	RSL	0.2	0.066	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,1,2-TRICHLOROETHANE	0.24	RSL	5	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	RSL	210000	53000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	RSL	70	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	GCTL	7	260	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,4-TRICHLOROBENZENE	0.99	RSL	70	0.99	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2-DIBROMO-3-CHLOROPROPANE	0.00032	RSL	0.2	0.00032	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.0065	RSL	0.02	0.0065	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROBENZENE	280	RSL	600	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	RSL	3	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-DICHLOROPROPANE	0.38	RSL	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	210	GCTL	210	NC	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,4-DICHLOROBENZENE	0.42	RSL	75	0.42	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
2-BUTANONE	4200	GCTL	4200	4900	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 U	1.3 U	1.3 U	1.3 U
2-HEXANONE	34	RSL	280	34	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
4-METHYL-2-PENTANONE	560	GCTL	560	1000	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	GCTL	6300	12000	3.2 J	3 J	3 J	2.8 J	2.2 UJ	3.3 U	3.1 U	3.2 U	3.2 U
BENZENE	0.39	RSL	1	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
BROMODICHLOROMETHANE	0.12	RSL	0.6	0.12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
BROMOFORM	4.4	GCTL	4.4	7.9	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
BROMOMETHANE	7	RSL	9.8	7	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
CARBON DISULFIDE	700	GCTL	700	720	0.32 J	0.34 J	0.34 J	0.25 U	0.25 U	0.33 J	0.6 J	0.25 UJ	0.25 UJ
CARBON TETRACHLORIDE	0.39	RSL	3	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROBENZENE	72	RSL	100	72	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLORODIBROMOMETHANE	0.15	RSL	0.4	0.15	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	12	GCTL	12	21000	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ
CHLOROFORM	0.19	RSL	70	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	GCTL	2.7	190	0.48 J	0.36 U	0.36 U	0.36 U	0.42 J	0.36 U	0.77 J	0.36 U	0.36 U
CIS-1,2-DICHLOROETHENE	28	RSL	70	28	0.24 J	0.21 U	0.21 U	0.25 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
CIS-1,3-DICHLOROPROPENE	0.41	RSL	NC	0.41	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
CYCLOHEXANE	13000	RSL	NC	13000	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 UJ	0.31 UJ	0.31 UJ
DICHLORODIFLUOROMETHANE	190	RSL	1400	190	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
ETHYLBENZENE	1.3	RSL	30	1.3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	GCTL	0.8	390	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
METHYL ACETATE	3000	GCTL	3000	16000	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
METHYL CYCLOHEXANE	NC	GCTL	NC	NC	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 U	0.3 U
METHYL TERT-BUTYL ETHER	12	RSL	20	12	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
METHYLENE CHLORIDE	4.7	RSL	5	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
STYRENE	100	GCTL	100	1100	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.072	RSL	3	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

Table E-3
Summary of Phase II Groundwater Analytical Results

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Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT18					JAX45-DPT19			
SAMPLE IDENTIFICATION					JAX-45-DPT18-20-06202111	JAX-45-DPT18-40-06202111	JAX-45-DPT18-40-06202111-AVG	JAX-45-DPT18-40-06202111-D	JAX-45-DPT18-60-06202111	JAX-45-DPT19-12-06222011	JAX-45-DPT19-20-06222011	JAX-45-DPT19-40-06222011	JAX-45-DPT19-40-06222011-AVG
SAMPLE DATE					20110621	20110621	20110621	20110621	20110621	20110622	20110622	20110622	20110622
VOLATILES (UG/L)													
TOLUENE	40	GCTL	40	860	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	20	GCTL	20	190	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	RSL	100	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,3-DICHLOROPROPENE	NC	GCTL	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TRICHLOROETHENE	0.44	RSL	3	0.44	**1.7**	0.42 J	0.42 J	**0.87 J**	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
TRICHLOROFLUOROMETHANE	1100	RSL	2100	1100	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
VINYL CHLORIDE	0.015	RSL	1	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Table E-3
Summary of Phase II Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT19		JAX45-DPT20						JAX45-DPT21
SAMPLE IDENTIFICATION					JAX-45-DPT19-40-06222011-D	JAX-45-DPT19-60-06222011	JAX-45-DPT20-12-06222011	JAX-45-DPT20-20-06222011	JAX-45-DPT20-40-06222011	JAX-45-DPT20-40-06222011-AVG	JAX-45-DPT20-40-06222011-D	JAX-45-DPT20-60-06222011	JAX-45-DPT21-12-06222011
SAMPLE DATE					20110622	20110622	20110622	20110622	20110622	20110622	20110622	20110622	20110622
VOLATILES (UG/L)													
1,1,1-TRICHLOROETHANE	200	GCTL	200	7500	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ
1,1,2,2-TETRACHLOROETHANE	0.066	RSL	0.2	0.066	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,1,2-TRICHLOROETHANE	0.24	RSL	5	0.24	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	RSL	210000	53000	0.31 U	0.31 U	0.31 UJ	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 UJ
1,1-DICHLOROETHANE	2.4	RSL	70	2.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,1-DICHLOROETHENE	7	GCTL	7	260	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,4-TRICHLOROBENZENE	0.99	RSL	70	0.99	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2-DIBROMO-3-CHLOROPROPANE	0.00032	RSL	0.2	0.00032	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.0065	RSL	0.02	0.0065	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROBENZENE	280	RSL	600	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	RSL	3	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-DICHLOROPROPANE	0.38	RSL	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	210	GCTL	210	NC	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,4-DICHLOROBENZENE	0.42	RSL	75	0.42	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
2-BUTANONE	4200	GCTL	4200	4900	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2-HEXANONE	34	RSL	280	34	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
4-METHYL-2-PENTANONE	560	GCTL	560	1000	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	GCTL	6300	12000	3.1 J	3.1 U	4.1 U	5.7 U	4.4 U	4.4 U	4.4 U	2.2 U	3.5 U
BENZENE	0.39	RSL	1	0.39	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
BROMODICHLOROMETHANE	0.12	RSL	0.6	0.12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
BROMOFORM	4.4	GCTL	4.4	7.9	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
BROMOMETHANE	7	RSL	9.8	7	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
CARBON DISULFIDE	700	GCTL	700	720	0.25 UJ	0.25 UJ	0.25 UJ	0.4 J	0.42 J	0.42 J	0.25 UJ	0.25 UJ	0.25 UJ
CARBON TETRACHLORIDE	0.39	RSL	3	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROBENZENE	72	RSL	100	72	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLORODIBROMOMETHANE	0.15	RSL	0.4	0.15	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	12	GCTL	12	21000	0.55 UJ	0.55 UJ	0.55 UJ	0.55 UJ	0.55 U	0.55 U	0.55 U	0.55 UJ	0.55 UJ
CHLOROFORM	0.19	RSL	70	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	GCTL	2.7	190	0.36 U	0.36 U	0.65 J	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
CIS-1,2-DICHLOROETHENE	28	RSL	70	28	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.96 J
CIS-1,3-DICHLOROPROPENE	0.41	RSL	NC	0.41	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
CYCLOHEXANE	13000	RSL	NC	13000	0.31 UJ	0.31 UJ	0.31 UJ	0.31 UJ	0.31 U	0.31 U	0.31 U	0.31 UJ	0.31 UJ
DICHLORODIFLUOROMETHANE	190	RSL	1400	190	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
ETHYLBENZENE	1.3	RSL	30	1.3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	GCTL	0.8	390	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
METHYL ACETATE	3000	GCTL	3000	16000	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
METHYL CYCLOHEXANE	NC	GCTL	NC	NC	0.3 U	0.3 U	0.3 UJ	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ
METHYL TERT-BUTYL ETHER	12	RSL	20	12	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
METHYLENE CHLORIDE	4.7	RSL	5	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
STYRENE	100	GCTL	100	1100	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.072	RSL	3	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

Table E-3
Summary of Phase II Groundwater Analytical Results

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Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT19		JAX45-DPT20						JAX45-DPT21
SAMPLE IDENTIFICATION					JAX-45-DPT19-40-06222011-D	JAX-45-DPT19-60-06222011	JAX-45-DPT20-12-06222011	JAX-45-DPT20-20-06222011	JAX-45-DPT20-40-06222011	JAX-45-DPT20-40-06222011-AVG	JAX-45-DPT20-40-06222011-D	JAX-45-DPT20-60-06222011	JAX-45-DPT21-12-06222011
SAMPLE DATE					20110622	20110622	20110622	20110622	20110622	20110622	20110622	20110622	20110622
VOLATILES (UG/L)													
TOLUENE	40	GCTL	40	860	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	20	GCTL	20	190	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	RSL	100	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,3-DICHLOROPROPENE	NC	GCTL	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TRICHLOROETHENE	0.44	RSL	3	0.44	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
TRICHLOROFLUOROMETHANE	1100	RSL	2100	1100	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
VINYL CHLORIDE	0.015	RSL	1	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Table E-3
Summary of Phase II Groundwater Analytical Results

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Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION					JAX45-DPT21			JAX45-DPT22			
SAMPLE IDENTIFICATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX-45-DPT21-20-06222011	JAX-45-DPT21-40-06222011	JAX-45-DPT21-60-06222011	JAX-45-DPT22-12-06232011	JAX-45-DPT22-20-06232011	JAX-45-DPT22-40-06232011	JAX-45-DPT22-60-06232011
SAMPLE DATE					20110622	20110622	20110622	20110623	20110623	20110623	20110623
VOLATILES (UG/L)											
1,1,1-TRICHLOROETHANE	200	GCTL	200	7500	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-TETRACHLOROETHANE	0.066	RSL	0.2	0.066	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,1,2-TRICHLOROETHANE	0.24	RSL	5	0.24	0.33 U	0.33 U	0.33 U	**0.53 J**	0.33 U	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	53000	RSL	210000	53000	0.31 UJ	0.31 U	0.31 UJ	110	0.31 U	0.31 U	0.31 U
1,1-DICHLOROETHANE	2.4	RSL	70	2.4	0.21 U	0.21 U	0.21 U	**44**	**14**	2.1	0.21 U
1,1-DICHLOROETHENE	7	GCTL	7	260	0.35 U	0.35 U	0.35 U	**260**	**130**	**20**	0.35 U
1,2,4-TRICHLOROBENZENE	0.99	RSL	70	0.99	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2-DIBROMO-3-CHLOROPROPANE	0.00032	RSL	0.2	0.00032	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DIBROMOETHANE	0.0065	RSL	0.02	0.0065	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROBENZENE	280	RSL	600	280	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	0.15	RSL	3	0.15	0.2 U	0.2 U	0.2 U	**280**	**88**	**16**	0.2 U
1,2-DICHLOROPROPANE	0.38	RSL	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-DICHLOROBENZENE	210	GCTL	210	NC	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,4-DICHLOROBENZENE	0.42	RSL	75	0.42	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
2-BUTANONE	4200	GCTL	4200	4900	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2-HEXANONE	34	RSL	280	34	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
4-METHYL-2-PENTANONE	560	GCTL	560	1000	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
ACETONE	6300	GCTL	6300	12000	2.6 U	4.8 U	2.9 U	2.2 UJ	4.5 U	2.2 UJ	2.2 UJ
BENZENE	0.39	RSL	1	0.39	0.26 U	0.26 U	0.26 U	**1.5**	**0.52 J**	0.26 U	0.26 U
BROMODICHLOROMETHANE	0.12	RSL	0.6	0.12	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
BROMOFORM	4.4	GCTL	4.4	7.9	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
BROMOMETHANE	7	RSL	9.8	7	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
CARBON DISULFIDE	700	GCTL	700	720	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.63 J	0.25 U	0.25 U
CARBON TETRACHLORIDE	0.39	RSL	3	0.39	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLOROBENZENE	72	RSL	100	72	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
CHLORODIBROMOMETHANE	0.15	RSL	0.4	0.15	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CHLOROETHANE	12	GCTL	12	21000	0.55 UJ	0.55 U	0.55 UJ	0.55 U	0.55 U	0.55 U	0.55 U
CHLOROFORM	0.19	RSL	70	0.19	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROMETHANE	2.7	GCTL	2.7	190	0.36 U	0.36 U	0.5 J	0.36 U	0.36 U	0.44 J	0.36 U
CIS-1,2-DICHLOROETHENE	28	RSL	70	28	0.21 U	0.21 U	0.21 U	**800**	**320**	11	0.21 U
CIS-1,3-DICHLOROPROPENE	0.41	RSL	NC	0.41	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
CYCLOHEXANE	13000	RSL	NC	13000	0.31 UJ	0.31 U	0.31 UJ	0.31 U	0.31 U	0.31 U	0.31 U
DICHLORODIFLUOROMETHANE	190	RSL	1400	190	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
ETHYLBENZENE	1.3	RSL	30	1.3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
ISOPROPYLBENZENE	0.8	GCTL	0.8	390	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
METHYL ACETATE	3000	GCTL	3000	16000	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
METHYL CYCLOHEXANE	NC	GCTL	NC	NC	0.3 UJ	0.3 U	0.3 UJ	0.3 U	0.3 U	0.3 U	0.3 U
METHYL TERT-BUTYL ETHER	12	RSL	20	12	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
METHYLENE CHLORIDE	4.7	RSL	5	4.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
STYRENE	100	GCTL	100	1100	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.072	RSL	3	0.072	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

Table E-3
Summary of Phase II Groundwater Analytical Results

Remedial Investigation Report, PSC 45
Naval Air Station Jacksonville
Jacksonville, Florida

LOCATION	PAL	PAL Source	Florida GCTL	USEPA Tap RSL	JAX45-DPT21			JAX45-DPT22			
SAMPLE IDENTIFICATION					JAX-45-DPT21-20-06222011	JAX-45-DPT21-40-06222011	JAX-45-DPT21-60-06222011	JAX-45-DPT22-12-06232011	JAX-45-DPT22-20-06232011	JAX-45-DPT22-40-06232011	JAX-45-DPT22-60-06232011
SAMPLE DATE					20110622	20110622	20110622	20110623	20110623	20110623	20110623
VOLATILES (UG/L)											
TOLUENE	40	GCTL	40	860	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TOTAL XYLENES	20	GCTL	20	190	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
TRANS-1,2-DICHLOROETHENE	86	RSL	100	86	0.25 U	0.25 U	0.25 U	3.6	10	0.6 J	0.25 U
TRANS-1,3-DICHLOROPROPENE	NC	GCTL	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
TRICHLOROETHENE	0.44	RSL	3	0.44	0.28 U	**1.7**	0.28 U	**58**	**5.8**	**19**	0.28 U
TRICHLOROFLUOROMETHANE	1100	RSL	2100	1100	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
VINYL CHLORIDE	0.015	RSL	1	0.015	0.25 U	0.25 U	0.25 U	**1.6 J**	**0.73 J**	0.25 U	0.25 U

APPENDIX F

DERIVATION OF RECEPTOR-SPECIFIC RSLs AND CTLs

RISK ASSESSMENT SPREADSHEET - CALCULATION OF RISK-BASED CONCENTRATIONS FOR SOIL

SITE NAME: NAS JACKSONVILLE
EXPOSURE POINT: SITE 45
EXPOSURE SCENARIO: MAINTENANCE WORKERS
MEDIA: SOIL
DATE: APRIL 15, 2012

THIS SPREADSHEET CALCULATES RISK-BASED CLEANUP GOALS FOR EXPOSURES TO SOIL
THE INCIDENTAL INGESTION, DERMAL CONTACT, AND INHALATION ROUTES OF EXPOSURE ARE CONSIDERED.

RELEVANT EQUATION:

Carcinogens

$$PRG_{soil} = \frac{TCR}{IntakeFac_{oral} \cdot CSF_{oral} + IntakeFac_{derm} \cdot CSF_{derm} + IntakeFac_{inh} \cdot CSF_{inh}}$$

NonCarcinogens

$$PRG_{soil} = \frac{THI}{\left(\frac{IntakeFac_{oral}}{RfD_{oral}}\right) + \left(\frac{IntakeFac_{derm}}{RfD_{derm}}\right) + \left(\frac{IntakeFac_{inh}}{RfD_{inh}}\right)}$$

$$IntakeFac_{oral} = \frac{IR \times EF \times ED \times FI \times CF}{BW \times AT}$$

$$IntakeFac_{derm} = \frac{SA \times AF \times ABS \times EF \times ED \times CF}{BW \times AT}$$

$$IntakeFac_{inh} = \frac{EF \times ED \times ET \times (1/VF + 1/PEF)}{AT \times 24\ Hours/day}$$

WHERE:

PRG = :		Concentration in soil (mg/kg)
TCR = :	1.0E-06	Target Cancer Risk
THI = :	1	Target Hazard Index
IR = :	100	Soil Ingestion Rate (mg/day)
CF = :	1.0E-06	Conversion Factor (kg/mg)
FI = :	1	Fraction from contaminated source (unitless)
SA = :	3300	Skin surface available for contact (cm^2/day)
AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
ABS = :	Chemical Specific	Absorption factor (unitless)
ET = :	8	Exposure time (hr/day)
EF = :	50	Exposure Frequency (days/year)
ED = :	25	Exposure Duration (years)
BW = :	70	Body Weight (kg)
ATc = :	25,550	Averaging time for carcinogenic exposures (days)
ATn = :	9,125	Averaging time for noncarcinogenic exposures (days)
PEF = :	1.40E+09	Particulate emission factor (m^3/kg)
VF = :	Chemical Specific	Volatilization Factor (m^3/kg)

CHEMICAL	ABS	Cancer Slope Factor			Reference Dose		
		Oral $(mg/kg/day)^{-1}$	Dermal $(mg/kg/day)^{-1}$	Inhalation $(ug/m^3)^{-1}$	Oral (mg/kg/day)	Dermal (mg/kg/day)	Inhalation (mg/m^3)
Cadmium	0.001	NA	NA	1.8E-03	1.0E-03	2.5E-05	2.0E-05
Chromium	0	5.0E-01	NA	8.4E-02	3.0E-03	NA	1.0E-04
Benzo(a)pyrene	0.13	7.3E+00	7.3E+00	1.1E-03	NA	NA	NA

CHEMICAL	Carcinogenic Intake Factors			Noncarcinogenic Intakes Factors		
	Oral (kg/kg/day)	Dermal (kg/kg/day)	Inhalation (kg/m^3)	Oral (kg/kg/day)	Dermal (kg/kg/day)	Inhalation (kg/m^3)
Cadmium	6.99E-08	4.61E-10	1.16E-08	1.96E-07	1.29E-09	3.26E-11
Chromium	6.99E-08	0.00E+00	1.16E-08	1.96E-07	0.00E+00	3.26E-11
Benzo(a)pyrene	6.99E-08	6.00E-08	1.16E-08	1.96E-07	1.68E-07	3.26E-11

CHEMICAL	Soil Concentration	
	Carcinogenic (mg/kg)	Noncarcinogenic (mg/kg)
Cadmium	47693.33	4016
Chromium	27.84	15254
Benzo(a)pyrene	1.04	NA

RISK ASSESSMENT SPREADSHEET - CALCULATION OF RISK-BASED CONCENTRATIONS FOR SOIL

SITE NAME: NAS JACKSONVILLE
EXPOSURE POINT: SITE 45
EXPOSURE SCENARIO: CONSTRUCTION WORKERS
MEDIA: SOIL
DATE: APRIL 15, 2012

THIS SPREADSHEET CALCULATES RISK-BASED CLEANUP GOALS FOR EXPOSURES TO SOIL
THE INCIDENTAL INGESTION, DERMAL CONTACT, AND INHALATION ROUTES OF EXPOSURE ARE CONSIDERED.

RELEVANT EQUATION:

Carcinogens

$$PRG_{soil} = \frac{TCR}{IntakeFac_{oral} \cdot CSF_{oral} + IntakeFac_{derm} \cdot CSF_{derm} + IntakeFac_{inh} \cdot CSF_{inh}}$$

NonCarcinogens

$$PRG_{soil} = \frac{THI}{\left(\frac{IntakeFac_{oral}}{RfD_{oral}}\right) + \left(\frac{IntakeFac_{derm}}{RfD_{derm}}\right) + \left(\frac{IntakeFac_{inh}}{RfD_{inh}}\right)}$$

$$IntakeFac_{oral} = \frac{IR \times EF \times ED \times FI \times CF}{BW \times AT}$$

$$IntakeFac_{derm} = \frac{SA \times AF \times ABS \times EF \times ED \times CF}{BW \times AT}$$

$$IntakeFac_{inh} = \frac{EF \times ED \times ET \times (1/VF + 1/PEF)}{AT \times 24\ Hours/day}$$

WHERE:

PRG = :		Concentration in soil (mg/kg)
TCR = :	1.0E-06	Target Cancer Risk
THI = :	1	Target Hazard Index
IR = :	330	Soil Ingestion Rate (mg/day)
CF = :	1.0E-06	Conversion Factor (kg/mg)
FI = :	1	Fraction from contaminated source (unitless)
SA = :	3300	Skin surface available for contact (cm^2/day)
AF = :	0.3	Soil to skin adherence factor (mg/cm^2)
ABS = :	Chemical Specific	Absorption factor (unitless)
ET = :	8	Exposure time (hr/day)
EF = :	250	Exposure Frequency (days/year)
ED = :	1	Exposure Duration (years)
BW = :	70	Body Weight (kg)
ATc = :	25,550	Averaging time for carcinogenic exposures (days)
ATn = :	365	Averaging time for noncarcinogenic exposures (days)
PEF = :	1.62E+06	Particulate emission factor (m^3/kg)
VF = :	Chemical Specific	Volatilization Factor (m^3/kg)

CHEMICAL	ABS	Cancer Slope Factor			Reference Dose		
		Oral $(mg/kg/day)^{-1}$	Dermal $(mg/kg/day)^{-1}$	Inhalation $(ug/m^3)^{-1}$	Oral (mg/kg/day)	Dermal (mg/kg/day)	Inhalation (mg/m^3)
Cadmium	0.001	NA	NA	1.8E-03	1.0E-03	2.5E-05	2.0E-05
Chromium	0	5.0E-01	NA	8.4E-02	3.0E-03	NA	1.0E-04
Benzo(a)pyrene	0.13	7.3E+00	7.3E+00	1.1E-03	NA	NA	NA

CHEMICAL	Carcinogenic Intake Factors			Noncarcinogenic Intakes Factors		
	Oral (kg/kg/day)	Dermal (kg/kg/day)	Inhalation (kg/m^3)	Oral (kg/kg/day)	Dermal (kg/kg/day)	Inhalation (kg/m^3)
Cadmium	4.61E-08	1.38E-10	2.01E-06	3.23E-06	9.69E-09	1.41E-07
Chromium	4.61E-08	0.00E+00	2.01E-06	3.23E-06	0.00E+00	1.41E-07
Benzo(a)pyrene	4.61E-08	1.80E-08	2.01E-06	3.23E-06	1.26E-06	1.41E-07

CHEMICAL	Soil Concentration	
	Carcinogenic (mg/kg)	Noncarcinogenic (mg/kg)
Cadmium	275.94	94
Chromium	5.20	402
Benzo(a)pyrene	0.37	NA

RISK ASSESSMENT SPREADSHEET - CALCULATION OF RISK-BASED CONCENTRATIONS FOR SOIL

SITE NAME: NAS JACKSONVILLE
EXPOSURE POINT: SITE 45
EXPOSURE SCENARIO: ADOLESCENT TRESPASSERS (6-16 YEARS)
MEDIA: SOIL
DATE: APRIL 15, 2012

THIS SPREADSHEET CALCULATES RISK-BASED CLEANUP GOALS FOR EXPOSURES TO SOIL
THE INCIDENTAL INGESTION, DERMAL CONTACT, AND INHALATION ROUTES OF EXPOSURE ARE CONSIDERED.

RELEVANT EQUATION:

Carcinogens

$$PRG_{soil} = \frac{TCR}{IntakeFac_{oral} \cdot CSF_{oral} + IntakeFac_{derm} \cdot CSF_{derm} + IntakeFac_{inh} \cdot CSF_{inh}}$$

NonCarcinogens

$$PRG_{soil} = \frac{THI}{\left(\frac{IntakeFac_{oral}}{RfD_{oral}}\right) + \left(\frac{IntakeFac_{derm}}{RfD_{derm}}\right) + \left(\frac{IntakeFac_{inh}}{RfD_{inh}}\right)}$$

$$IntakeFac_{oral} = \frac{IR \times EF \times ED \times FI \times CF}{BW \times AT}$$

$$IntakeFac_{derm} = \frac{SA \times AF \times ABS \times EF \times ED \times CF}{BW \times AT}$$

$$IntakeFac_{inh} = \frac{EF \times ED \times ET \times (1/VF + 1/PEF)}{AT \times 24\ Hours/day}$$

WHERE:

PRG = :		Concentration in soil (mg/kg)
TCR = :	1.0E-06	Target Cancer Risk
THI = :	1	Target Hazard Index
IR = :	100	Soil Ingestion Rate (mg/day)
CF = :	1.0E-06	Conversion Factor (kg/mg)
FI = :	1	Fraction from contaminated source (unitless)
SA = :	5300	Skin surface available for contact (cm^2/day)
AF = :	0.2	Soil to skin adherence factor (mg/cm^2)
ABS = :	Chemical Specific	Absorption factor (unitless)
ET = :	4	Exposure time (hr/day)
EF = :	26	Exposure Frequency (days/year)
ED = :	10	Exposure Duration (years)
BW = :	43	Body Weight (kg)
ATc = :	25,550	Averaging time for carcinogenic exposures (days)
ATn = :	3,650	Averaging time for noncarcinogenic exposures (days)
PEF = :	1.40E+09	Particulate emission factor (m^3/kg)
VF = :	Chemical Specific	Volatilization Factor (m^3/kg)

CHEMICAL	ABS	Cancer Slope Factor			Reference Dose		
		Oral $(mg/kg/day)^{-1}$	Dermal $(mg/kg/day)^{-1}$	Inhalation $(ug/m^3)^{-1}$	Oral (mg/kg/day)	Dermal (mg/kg/day)	Inhalation (mg/m^3)
Cadmium	0.001	NA	NA	1.8E-03	1.0E-03	2.5E-05	2.0E-05
Chromium	0	1.5E+00	NA	2.5E-01	3.0E-03	NA	1.0E-04
Benzo(a)pyrene	0.13	2.2E+01	2.2E+01	3.3E-03	NA	NA	NA

CHEMICAL	Carcinogenic Intake Factors			Noncarcinogenic Intakes Factors		
	Oral (kg/kg/day)	Dermal (kg/kg/day)	Inhalation (kg/m^3)	Oral (kg/kg/day)	Dermal (kg/kg/day)	Inhalation (kg/m^3)
Cadmium	2.37E-08	2.51E-10	1.21E-09	1.66E-07	1.76E-09	8.48E-12
Chromium	2.37E-08	0.00E+00	1.21E-09	1.66E-07	0.00E+00	8.48E-12
Benzo(a)pyrene	2.37E-08	3.26E-08	1.21E-09	1.66E-07	2.28E-07	8.48E-12

CHEMICAL	Soil Concentration	
	Carcinogenic (mg/kg)	Noncarcinogenic (mg/kg)
Cadmium	458589.74	4232
Chromium	27.93	18082
Benzo(a)pyrene	0.81	NA

DERIVATION OF FDEP SCTL - CARCINOGENIC

$$SCTL = \frac{TR \times BW \times AT \times RBA}{EF \times ED \times FC \times [\ (CSFo \times Iro \times 10E\text{-}06\ kg/mg)\ +\ (CSFd \times SA \times AF \times DA \times 10E\text{-}06\ kg/mg)\ +\ (CSFi \times Iri \times (1/VF\ +\ 1/PEF)\ )\ ]}$$

			RES	IND	MW	CW	TRES
SCTL	=	Soil Cleanup Target Level (mg/kg)					
TR	=	Target Cancer Risk	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
BW	=	Body Weight (kg)	51.9	76.1	76.1	76.1	43
AT	=	Averaging Time (d)	25500	25500	25500	25500	25500
EF	=	Exposure Frequency (d/y)	350	250	50	250	26
ED	=	Exposure Duration (y)	30	25	25	1	10
RBA	=	Relative Bioavailability Factor	1	1	1	1	1
FC	=	Fraction from Contaminated Source	1	1	1	1	1
IRo	=	Ingestion Rate, oral (mg/day)	120	50	50	330	100
SA	=	Surface Area (cm2)	4810	3500	3500	3300	5300
AF	=	Adherance Factor (mg/cm2)	0.1	0.2	0.2	0.3	0.2
DA	=	Dermal Absorption	chem-spec	chem-spec	chem-spec	chem-spec	chem-spec
IRi	=	Inhalation Rate (m3/day)	12.2	20	20	20	20
VF	=	Volatilization Factor (m3/kg)	chem-spec	chem-spec	chem-spec	chem-spec	chem-spec
PEF	=	Particulate Emissions Factor (m3/kg)	1.24E+09	1.24E+09	1.24E+09	1.62E+06	1.24E+09
CSF	=	Cancer Slope Factor (mg/kg/day)-1	chem-spec	chem-spec	chem-spec	chem-spec	chem-spec
CSFo	=	Oral CSF (FDEP criteria)					
CSFd	=	Dermal CSF (FDEP criteria)					
CSFi	=	Inhalation CSF (FDEP criteria)					

Parameter	DA	VF	CSFo	CSFd	CSFi	RES	IND	MW	CW	TRES
Cadmium	0.001	NA	NA	NA	6.3	2.03E+03	3.06E+03	1.53E+04	9.98E+01	4.15E+04
Chromium	0.001	NA	NA	NA	41	3.12E+02	4.70E+02	2.35E+03	1.53E+01	6.38E+03
BaPEq	0.01	NA	7.3	14.6	3.1	1.33E-01	6.65E-01	3.32E+00	2.99E+00	4.77E+00

Receptor Specific Terms			RES	IND	MW	CW	TRES
A	=	(TR x BW x AT x RBA)/(EF x ED x FC)	0.000126	0.00031	0.001552	0.007762	0.004217
B	=	Oral Term	0.00012	0.00005	0.00005	0.00033	0.0001
C	=	Dermal Term	0.000481	0.0007	0.0007	0.00099	0.00106
D	=	Inhalation Term	9.84E-09	1.61E-08	1.61E-08	1.23E-05	1.61E-08

DERIVATION OF FDEP SCTL - NONCARCINOGENIC

$$SCTL = \frac{THI \times BW \times AT \times RBA}{EF \times ED \times FC \times [\ (1/RfDo \times Iro \times 10E\text{-}06\ kg/mg)\ +\ (1/RfDd \times SA \times AF \times DA \times 10E\text{-}06\ kg/mg)\ +\ (1/RfDi \times Iri \times (1/VF\ +\ 1/PEF)\ )\ ]}$$

			RES	IND	MW	CW	TRES
SCTL	=	Soil Cleanup Target Level (mg/kg)					
THI	=	Target Hazard Index	1	1	1	1	1
BW	=	Body Weight (kg)	16.8	76.1	76.1	76.1	43
AT	=	Averaging Time (d)	2190	9125	9125	365	3650
EF	=	Exposure Frequency (d/y)	350	250	50	250	26
ED	=	Exposure Duration (y)	6	25	25	1	10
RBA	=	Relative Bioavailability Factor	1	1	1	1	1
FC	=	Fraction from Contaminated Source	1	1	1	1	1
IRo	=	Ingestion Rate, oral (mg/day)	200	50	50	330	100
SA	=	Surface Area (cm2)	2960	3500	3500	3300	5300
AF	=	Adherance Factor (mg/cm2)	0.2	0.2	0.2	0.3	0.2
DA	=	Dermal Absorption	chem-spec	chem-spec	chem-spec	chem-spec	chem-spec
IRi	=	Inhalation Rate (m3/day)	8.1	20	20	20	20
VF	=	Volatilization Factor (m3/kg)	chem-spec	chem-spec	chem-spec	chem-spec	chem-spec
PEF	=	Particulate Emissions Factor (m3/kg)	1.24E+09	1.24E+09	1.24E+09	1.62E+06	1.24E+09
CSF	=	Cancer Slope Factor (mg/kg/day)-1	chem-spec	chem-spec	chem-spec	chem-spec	chem-spec
CSFo	=	Oral CSF (FDEP criteria)					
CSFd	=	Dermal CSF (FDEP criteria)					
CSFi	=	Inhalation CSF (FDEP criteria)					

Parameter	DA	VF	RfDo	RfDd	RfDi	RES	IND	MW	CW	TRES
Cadmium	0.001	NA	1.00E-03	4.40E-05	5.70E-05	8.20E+01	1.68E+03	8.39E+03	1.95E+02	4.85E+03
Chromium	0.001	NA	3.00E-03	3.90E-05	2.29E-06	2.07E+02	2.67E+03	1.33E+04	2.01E+01	8.93E+03
BaPEq	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA

Receptor Specific Terms			RES	IND	MW	CW	TRES
A	=	(THI x BW x AT x RBA)/(EF x ED x FC)	17.52	111.106	555.53	111.106	603.6538
B	=	Oral Term	0.0002	0.00005	0.00005	0.00033	0.0001
C	=	Dermal Term	0.000592	0.0007	0.0007	0.00099	0.00106
D	=	Inhalation Term	6.53E-09	1.61E-08	1.61E-08	1.23E-05	1.61E-08

DERIVATION OF FDEP GCTL - CARCINOGENIC AND NONCARCINOGENIC

GCTL-C	=	TR x BW x CF / (CSFo x WC)	
GCTL	=	Groundwater Cleanup Target Level (ug/L)	
TR	=	Target Cancer Risk	1.00E-06
BW	=	Body Weight (kg)	70
CF	=	Conversion Factor (ug/mg)	1000
CSFo	=	Oral Cancer Slope Factor (mg/kg/day)-1	chem spec
WC	=	Water Consumption	2

GCTL-NC		RfDo x BW x RSC x CF / WC	
GCTL	=	Groundwater Cleanup Target Level (ug/L)	
RfDo	=	Oral Reference Dose (mg/kg/day)	chem spec
RSC	=	Relative Source Contribution	0.2
CF	=	Conversion Factor (ug/mg)	1000
WC	=	Water Consumption	2

Parameter	FDEP CSFo	FDEP RfDo	GCTL-C	GCTL-N
Manganese	NA	4.70E-02	NA	329
TPH	NA	4.00E-02	NA	280
BaPEq	7.3	NA	0.005	NA
1-Methylnaphthalene	NA	4.00E-03	NA	28
2-Methylnaphthalene	NA	4.00E-03	NA	28
Naphthalene	NA	2.00E-02	NA	140
1,1-Dichloroethane	NA	1.00E-01	NA	700
1,1-Dichloroethene	NA	5.00E-02	NA	350
1,2-Dichloroethane	9.10E-02	3.00E-02	0.4	210
1,4-Dichlorobenzene	2.40E-02	3.00E-02	1.5	210
Benzene	5.50E-02	4.00E-03	0.6	28
cis-1,2-Dichloroethene	NA	1.00E-02	NA	70
Ethylbenzene	NA	1.00E-01	NA	700
Isopropylbenzene	NA	1.00E-01	NA	700
Xylenes	NA	2.00E-01	NA	1400
Tetrachloroethene	5.20E-02	1.00E-02	0.7	70
Trichloroethene	1.10E-02	6.00E-03	3.2	42
Vinyl Chloride	7.20E-01	3.00E-03	0.0	21

APPENDIX G

FLUCL OUTPUT

Upper Confidence Limits
Naval Air Station Jacksonville
Jacksonville, Florida

CADMIUM
FDEP UCL Calculator Version 1.1

4/24/12

Summary Statistics for	
Number of Samples	10
Number of Censored Data	0
Minimum	0.05
Maximum	9.7
Mean	1.331
Median	0.315
Standard Deviation	2.965458
Variance	8.793943
Coefficient of Variation	2.227993
Skewness	3.066021

95% UCL (Assuming Normal Data)	
Student's-t	3.05002

95% UCL (Adjusted for Skewness)	
Adjusted-CLT	3.845272
Modified-t	3.201556

95% Non-parametric UCL	
CLT	2.873616
Jackknife	NA
Standard Bootstrap	2.859034
Bootstrap-t	13.72598
Chebyshev (Mean, Std)	5.418697

Summary Statistics for ln()	
Minimum	-2.99573
Maximum	2.272126
Mean	-1.1263
Standard Deviation	1.674385
Variance	2.803564

Goodness-of-Fit Results	
Distribution Recommended	Lognormal
Distribution Used	Lognormal

Estimates Assuming Lognormal Distribution	
MLE Mean	1.317165
MLE Standard Deviation	5.186244
MLE Median	0.324231
MLE Coefficient of Variation	3.93743
MVUE Estimate of Mean	1.019213
MVUE Estimate of Std. Dev.	2.014544
MVUE Estimate of SE	0.566691
MVUE Coefficient of Variation	1.976567

UCL Assuming Lognormal Distribution	
95% H-UCL	20.2441
95% Chebyshev (MVUE) UCL	3.489361
99% Chebyshev (MVUE) UCL	6.657727

FDEP Recommended UCL to Use:
3.489361

Upper Confidence Limits
Naval Air Station Jacksonville
Jacksonville, Florida

CHROMIUM
FDEP UCL Calculator Version 1.1

4/24/12

Summary Statistics for	
Number of Samples	10
Number of Censored Data	1
Minimum	0.32
Maximum	15.75
Mean	5.427
Median	4.6
Standard Deviation	4.097989
Variance	16.79351
Coefficient of Variation	0.755111
Skewness	1.890112

95% UCL (Assuming Normal Data)	
Student's-t	7.802527

95% UCL (Adjusted for Skewness)	
Adjusted-CLT	8.386511
Modified-t	7.931621

95% Non-parametric UCL	
CLT	7.558752
Jackknife	NA
Standard Bootstrap	6.994993
Bootstrap-t	10.48861
Chebyshev (Mean, Std)	11.07582

Summary Statistics for ln()	
Minimum	-1.13943
Maximum	2.75684
Mean	1.376828
Standard Deviation	1.007903
Variance	1.015869

Goodness-of-Fit Results	
Distribution Recommended	Neither
Distribution Used	Neither

Estimates Assuming Lognormal Distribution	
MLE Mean	6.584792
MLE Standard Deviation	8.740087
MLE Median	3.962314
MLE Coefficient of Variation	1.327314
MVUE Estimate of Mean	6.10898
MVUE Estimate of Std. Dev.	6.52073
MVUE Estimate of SE	2.126441
MVUE Coefficient of Variation	1.067401

UCL Assuming Lognormal Distribution	
95% H-UCL	20.00852
95% Chebyshev (MVUE) UCL	15.37792
99% Chebyshev (MVUE) UCL	27.26686

FDEP Recommended UCL to Use:
11.07582

Upper Confidence Limits
Naval Air Station Jacksonville
Jacksonville, Florida

BAP EQUIVALENT HALFND
FDEP UCL Calculator Version 1.1

4/24/12

Summary Statistics for BAP EQUI	
Number of Samples	10
Number of Censored Data	0
Minimum	7.6714
Maximum	446.02
Mean	171.7713
Median	159.347
Standard Deviation	132.9787
Variance	17683.34
Coefficient of Variation	0.774161
Skewness	0.715338

95% UCL (Assuming Normal Data)	
Student's-t	248.8566

95% UCL (Adjusted for Skewness)	
Adjusted-CLT	251.1119
Modified-t	250.442

95% Non-parametric UCL	
CLT	240.9462
Jackknife	NA
Standard Bootstrap	233.3351
Bootstrap-t	269.6943
Chebyshev (Mean, Std)	355.0741

Summary Statistics for ln(BAP EQUIVALENT-HALFND)	
Minimum	2.037499
Maximum	6.100364
Mean	4.652167
Standard Deviation	1.30283
Variance	1.697365

Goodness-of-Fit Results	
Distribution Recommended	Lognormal
Distribution Used	Lognormal

Estimates Assuming Lognormal Distribution	
MLE Mean	244.8999
MLE Standard Deviation	517.1705
MLE Median	104.8118
MLE Coefficient of Variation	2.111763
MVUE Estimate of Mean	214.8419
MVUE Estimate of Std. Dev.	312.9003
MVUE Estimate of SE	93.58098
MVUE Coefficient of Variation	1.456421

UCL Assuming Lognormal Distribution	
95% H-UCL	1381.973
95% Chebyshev (MVUE) UCL	622.7521
99% Chebyshev (MVUE) UCL	1145.963

FDEP Recommended UCL to Use:
446.02

APPENDIX H

JOHNSON AND ETTINGER MODEL OUTPUT

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
91203	5.20E+01	Naphthalene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
5.90E-02	7.50E-06	4.82E-04	25	10,373	491.14	748.40	2.00E+03	3.10E+01	0.0E+00	3.0E-03

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	12,809	3.33E-04	1.39E-02	1.78E-04	1.54E-03	1.19E-04	4.27E-04

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	7.20E+02	0.10	1.47E+00	1.54E-03	4.00E+02	2.14E+10	5.88E-05	4.24E-02	NA	3.0E-03

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
91576	9.30E+00	2-Methylnaphthalene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
5.22E-02	7.75E-06	5.17E-04	25	12,600	514.26	761.00	2.81E+03	2.46E+01	0.0E+00	7.0E-02

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	16,110	3.25E-04	1.35E-02	1.78E-04	1.37E-03	1.26E-04	4.33E-04

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^I)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.26E+02	0.10	1.47E+00	1.37E-03	4.00E+02	4.49E+11	5.91E-05	7.42E-03	NA	7.0E-02

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
91576	1.20E+01	2-Methylnaphthalene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
5.22E-02	7.75E-06	5.17E-04	25	12,600	514.26	761.00	2.81E+03	2.46E+01	0.0E+00	7.0E-02

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	16,110	3.25E-04	1.35E-02	1.78E-04	1.37E-03	1.26E-04	4.33E-04

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^I)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.62E+02	0.10	1.47E+00	1.37E-03	4.00E+02	4.49E+11	5.91E-05	9.58E-03	NA	7.0E-02

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
75343	5.60E+01	1,1-Dichloroethane

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type (Lookup Soil)	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.42E-02	1.05E-05	5.61E-03	25	6,895	330.55	523.00	3.16E+01	5.06E+03	0.0E+00	5.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	7,339	4.54E-03	1.89E-01	1.78E-04	1.92E-03	1.62E-05	7.20E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.06E+04	0.10	1.47E+00	1.92E-03	4.00E+02	1.98E+08	2.28E-05	2.41E-01	NA	5.0E-01

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
75354	7.50E+02	1,1-Dichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
9.00E-02	1.04E-05	2.60E-02	25	6,247	304.75	576.05	5.89E+01	2.25E+03	0.0E+00	2.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	6,326	2.17E-02	9.02E-01	1.78E-04	2.32E-03	7.71E-06	3.48E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	6.77E+05	0.10	1.47E+00	2.32E-03	4.00E+02	6.99E+06	1.28E-05	8.64E+00	NA	2.0E-01

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
107062	2.00E+01	1,2-Dichloroethane

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.04E-01	9.90E-06	9.77E-04	25	7,643	356.65	561.00	1.74E+01	8.52E+03	2.6E-05	0.0E+00

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	8,412	7.67E-04	3.19E-02	1.78E-04	2.70E-03	7.26E-05	3.02E-04

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^I)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	6.37E+02	0.10	1.47E+00	2.70E-03	4.00E+02	8.00E+05	5.20E-05	3.31E-02	2.6E-05	NA

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
106467	1.70E+00	1,4-Dichlorobenzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
6.90E-02	7.90E-06	2.39E-03	25	9,271	447.21	684.75	6.17E+02	7.90E+01	0.0E+00	8.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	11,140	1.74E-03	7.22E-02	1.78E-04	1.79E-03	2.74E-05	1.19E-04

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.23E+02	0.10	1.47E+00	1.79E-03	4.00E+02	8.17E+08	3.22E-05	3.95E-03	NA	8.0E-01

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
71432	1.10E+00	Benzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
8.80E-02	9.80E-06	5.54E-03	25	7,342	353.24	562.16	5.89E+01	1.79E+03	7.8E-06	3.0E-02

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	8,019	4.39E-03	1.83E-01	1.78E-04	2.27E-03	1.66E-05	7.39E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	2.01E+02	0.10	1.47E+00	2.27E-03	4.00E+02	9.91E+06	2.33E-05	4.68E-03	7.8E-06	3.0E-02

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [x]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
156592	1.30E+01	cis-1,2-Dichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC	OR		SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.36E-02	1.13E-05	4.07E-03	25	7,192	333.65	544.00	3.55E+01	3.50E+03	0.0E+00	3.5E-02

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	7,633	3.27E-03	1.36E-01	1.78E-04	1.90E-03	2.21E-05	9.69E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.77E+03	0.10	1.47E+00	1.90E-03	4.00E+02	2.29E+08	2.82E-05	4.97E-02	NA	3.5E-02

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
100414	1.00E+01	Ethylbenzene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.50E-02	7.80E-06	7.86E-03	25	8,501	409.34	617.20	3.63E+02	1.69E+02	0.0E+00	1.0E+00

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	10,040	5.89E-03	2.45E-01	1.78E-04	1.94E-03	1.12E-05	5.01E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	2.45E+03	0.10	1.47E+00	1.94E-03	4.00E+02	1.62E+08	1.73E-05	4.23E-02	NA	1.0E+00

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
98828	3.50E+00	Cumene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type (Lookup Soil)	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
6.50E-02	7.10E-06	1.46E-02	25	10,335	425.56	631.10	4.89E+02	6.13E+01	0.0E+00	4.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} ($atm\text{-}m^3/mol$)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	12,504	1.02E-02	4.23E-01	1.78E-04	1.68E-03	7.38E-06	3.32E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^I)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.48E+03	0.10	1.47E+00	1.68E-03	4.00E+02	2.99E+09	1.23E-05	1.82E-02	NA	4.0E-01

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES: X

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
106423	4.40E+01	p-Xylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER SCS soil type directly above water table	ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vandose zone soil vapor permeability, k_v (cm^2)	ENTER Vadose zone SCS soil type (Lookup Soil)	ENTER Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.69E-02	8.44E-06	7.64E-03	25	8,525	411.52	616.20	3.89E+02	1.85E+02	0.0E+00	1.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	10,131	5.71E-03	2.37E-01	1.78E-04	1.99E-03	1.21E-05	5.41E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^I)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.04E+04	0.10	1.47E+00	1.99E-03	4.00E+02	1.02E+08	1.83E-05	1.92E-01	NA	1.0E-01

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (µg/L)	Chemical
127184	1.60E+01	Tetrachloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER SCS soil type directly above water table	ENTER Average soil/ groundwater temperature, T_S (°C)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vandose zone soil vapor permeability, k_v (cm^2)	ENTER Vadose zone SCS soil type (Lookup Soil)	ENTER Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)	ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.20E-02	8.20E-06	1.84E-02	25	8,288	394.40	620.20	1.55E+02	2.00E+02	5.9E-06	6.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	9,451	1.40E-02	5.81E-01	1.78E-04	1.86E-03	7.21E-06	3.25E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	9.30E+03	0.10	1.47E+00	1.86E-03	4.00E+02	3.59E+08	1.20E-05	1.12E-01	5.9E-06	6.0E-01

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
79016	3.90E+02	Trichloroethylene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
7.90E-02	9.10E-06	1.03E-02	25	7,505	360.36	544.20	1.66E+02	1.47E+03	1.1E-04	4.0E-02

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	8,433	8.06E-03	3.35E-01	1.78E-04	2.04E-03	1.04E-05	4.67E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	1.31E+05	0.10	1.47E+00	2.04E-03	4.00E+02	6.24E+07	1.63E-05	2.13E+00	1.1E-04	4.0E-02

DATA ENTRY SHEET

GW-SCREEN
Version 3.1; 02/04

Reset to

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION
(enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	**ENTER** Initial groundwater conc., C_W (µg/L)	Chemical
75014	7.00E-01	Vinyl chloride (chloroethene)

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	**ENTER** Depth below grade to water table, L_{WT} (cm)	**ENTER** SCS soil type directly above water table	**ENTER** Average soil/ groundwater temperature, T_S (°C)	**ENTER** Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
15	152	SC	20	

MORE ↓

ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)		**ENTER** User-defined vandose zone soil vapor permeability, k_v (cm^2)	**ENTER** Vadose zone SCS soil type Lookup Soil	**ENTER** Vadose zone soil dry bulk density, ρ_b^V (g/cm^3)	**ENTER** Vadose zone soil total porosity, n^V (unitless)	**ENTER** Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)
SC			SC	1.63	0.385	0.197

MORE ↓

ENTER Target risk for carcinogens, TR (unitless)	**ENTER** Target hazard quotient for noncarcinogens, THQ (unitless)	**ENTER** Averaging time for carcinogens, AT_C (yrs)	**ENTER** Averaging time for noncarcinogens, AT_{NC} (yrs)	**ENTER** Exposure duration, ED (yrs)	**ENTER** Exposure frequency, EF (days/yr)
1.0E-06	1	70	30	30	350

Used to calculate risk-based groundwater concentration.

CHEMICAL PROPERTIES SHEET

ABC

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.06E-01	1.23E-05	2.69E-02	25	5,250	259.25	432.00	1.86E+01	8.80E+03	8.8E-06	1.0E-01

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^v (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
137	0.188	0.299	1.77E-09	0.837	1.48E-09	30.00	0.385	0.030	0.355	4,000

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)
1.69E+04	1.00E+06	4.00E-04	15	4,887	2.34E-02	9.73E-01	1.78E-04	2.74E-03	8.88E-06	4.01E-05

Diffusion path length, L_d (cm)	Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
137	15	6.81E+02	0.10	1.47E+00	2.74E-03	4.00E+02	6.48E+05	1.44E-05	9.80E-03	8.8E-06	1.0E-01

APPENDIX I

RISK CALCULATIONS

RESIDENTIAL RISK CALCULATIONS - SOIL
SITE 45 NAS JACKSONVILLE, JACKSONVILLE, FLORIDA

Parameter	EPC	EPA RES NC	EPA RES HQ	EPA RES C	EPA RES ILCR		FDEP RES NC	FDEP RES HQ	FDEP RES C	FDEP RES ILCR
Cadmium (mg/kg)	3.5	70	5.0E-02	1800	1.9E-09		82	4.3E-02	2030	1.7E-09
Chromium (mg/kg)	11.1	230	4.8E-02	0.29	3.8E-05		210	5.3E-02	310	3.6E-08
BaP Equivalents (ug/kg)	446	NA	NA	15	3.0E-05				100	4.5E-06
		TOTAL	**9.8E-02**	**TOTAL**	**6.8E-05**		**TOTAL**	**9.6E-02**	**TOTAL**	**4.5E-06**

EPC	Exposure Point Concentration
EPA RES NC	EPA Noncarcinogenic Residential Soil RSL
EPA RES HQ	EPA-based Residential Hazard Quotient = EPC / EPA RES NC
EPA RES C	EPA Carcinogenic Residential Soil RSL
EPA RES ILCR	EPA- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/EPA RES C
FDEP RES NC	FDEP Noncarcinogenic Residential SCTL
FDEP RES HQ	FDEP-based Residential Hazard Quotient = EPC / FDEP RES NC
FDEP RES C	FDEP Carcinogenic Residential SCTL
FDEP RES ILCR	FDEP- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/FDEP RES C

INDUSTRIAL RISK CALCULATIONS - SOIL
SITE 45 NAS JACKSONVILLE, JACKSONVILLE, FLORIDA

Parameter	EPC	EPA IND NC	EPA IND HQ	EPA IND C	EPA IND ILCR	FDEP IND NC	FDEP IND HQ	FDEP IND C	FDEP IND ILCR
Cadmium (mg/kg)	3.5	800	4.4E-03	9300	3.8E-10	1700	2.1E-03	3060	1.1E-09
Chromium (mg/kg)	11.1	3100	3.6E-03	5.6	2.0E-06	2700	4.1E-03	470	2.4E-08
BaP Equivalents (ug/kg)	446	NA	NA	210	2.1E-06	NA	NA	700	6.4E-07
		TOTAL	**8.0E-03**	**TOTAL**	**4.1E-06**	**TOTAL**	**6.2E-03**	**TOTAL**	**6.6E-07**

EPC	Exposure Point Concentration
EPA RES NC	EPA Noncarcinogenic Residential Soil RSL
EPA RES HQ	EPA-based Residential Hazard Quotient = EPC / EPA RES NC
EPA RES C	EPA Carcinogenic Residential Soil RSL
EPA RES ILCR	EPA- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/EPA RES C
FDEP RES NC	FDEP Noncarcinogenic Residential SCTL
FDEP RES HQ	FDEP-based Residential Hazard Quotient = EPC / FDEP RES NC
FDEP RES C	FDEP Carcinogenic Residential SCTL
FDEP RES ILCR	FDEP- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/FDEP RES C

MAINTENANCE WORKER RISK CALCULATIONS - SOIL
SITE 45 NAS JACKSONVILLE, JACKSONVILLE, FLORIDA

Parameter	EPC	EPA MW NC	EPA MW HQ	EPA MW C	EPA MW ILCR		FDEP MW NC	FDEP MW HQ	FDEP MW C	FDEP MW ILCR
Cadmium (mg/kg)	3.5	4020	8.7E-04	47700	7.3E-11		8400	4.2E-04	15000	2.3E-10
Chromium (mg/kg)	11.1	15300	7.3E-04	28	4.0E-07		13000	8.5E-04	2400	4.6E-09
BaP Equivalents (ug/kg)	446	NA	NA	1000	4.5E-07		NA	NA	3300	1.4E-07
		TOTAL	**1.6E-03**	**TOTAL**	**8.4E-07**		**TOTAL**	**1.3E-03**	**TOTAL**	**1.4E-07**

EPC	Exposure Point Concentration
EPA RES NC	EPA Noncarcinogenic Residential Soil RSL
EPA RES HQ	EPA-based Residential Hazard Quotient = EPC / EPA RES NC
EPA RES C	EPA Carcinogenic Residential Soil RSL
EPA RES ILCR	EPA- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/EPA RES C
FDEP RES NC	FDEP Noncarcinogenic Residential SCTL
FDEP RES HQ	FDEP-based Residential Hazard Quotient = EPC / FDEP RES NC
FDEP RES C	FDEP Carcinogenic Residential SCTL
FDEP RES ILCR	FDEP- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/FDEP RES C

CONSTRUCTION WORKER RISK CALCULATIONS - SOIL
SITE 45 NAS JACKSONVILLE, JACKSONVILLE, FLORIDA

Parameter	EPC	EPA CW NC	EPA CW HQ	EPA CW C	EPA CW ILCR		FDEP CW NC	FDEP CW HQ	FDEP CW C	FDEP CW ILCR
Cadmium (mg/kg)	3.5	94	3.7E-02	276	1.3E-08		195	1.8E-02	1000	3.5E-09
Chromium (mg/kg)	11.1	402	2.8E-02	5	2.2E-06		20	5.6E-01	15	7.4E-07
BaP Equivalents (ug/kg)	446	NA	NA	400	1.1E-06		NA	NA	3000	1.5E-07
		TOTAL	6.5E-02	TOTAL	3.3E-06		TOTAL	5.7E-01	TOTAL	8.9E-07

EPC	Exposure Point Concentration
EPA RES NC	EPA Noncarcinogenic Residential Soil RSL
EPA RES HQ	EPA-based Residential Hazard Quotient = EPC / EPA RES NC
EPA RES C	EPA Carcinogenic Residential Soil RSL
EPA RES ILCR	EPA- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/EPA RES C
FDEP RES NC	FDEP Noncarcinogenic Residential SCTL
FDEP RES HQ	FDEP-based Residential Hazard Quotient = EPC / FDEP RES NC
FDEP RES C	FDEP Carcinogenic Residential SCTL
FDEP RES ILCR	FDEP- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/FDEP RES C

ADOLESCENT TRESPASSER RISK CALCULATIONS - SOIL
SITE 45 NAS JACKSONVILLE, JACKSONVILLE, FLORIDA

Parameter	EPC	EPA TRES NC	EPA TRES HQ	EPA TRES C	EPA TRES ILCR		FDEP TRES NC	FDEP TRES HQ	FDEP TRES C	FDEP TRES ILCR
Cadmium (mg/kg)	3.5	4200	8.3E-04	460000	7.6E-12		4900	7.1E-04	42000	8.3E-11
Chromium (mg/kg)	11.1	18000	6.2E-04	28	4.0E-07		8900	1.2E-03	6400	1.7E-09
BaP Equivalents (ug/kg)	446	NA	NA	800	5.6E-07		NA	NA	4800	9.3E-08
		TOTAL	1.5E-03	TOTAL	9.5E-07		TOTAL	2.0E-03	TOTAL	9.5E-08

EPC	Exposure Point Concentration
EPA RES NC	EPA Noncarcinogenic Residential Soil RSL
EPA RES HQ	EPA-based Residential Hazard Quotient = EPC / EPA RES NC
EPA RES C	EPA Carcinogenic Residential Soil RSL
EPA RES ILCR	EPA- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/EPA RES C
FDEP RES NC	FDEP Noncarcinogenic Residential SCTL
FDEP RES HQ	FDEP-based Residential Hazard Quotient = EPC / FDEP RES NC
FDEP RES C	FDEP Carcinogenic Residential SCTL
FDEP RES ILCR	FDEP- based Incremental Lifetime Cancer Risk = (EPC * 1E-06)/FDEP RES C

GROUNDWATER RISK CALCULATIONS
SITE 45 NAS JACKSONVILLE, JACKSONVILLE, FLORIDA

GCTL-C = TR x BW x CF / (CSFo x WC)

GCTL = Groundwater Cleanup Target Level (ug/L)
TR = Target Cancer Risk 1.00E-06
BW = Body Weight (kg) 70
CF = Conversion Factor (ug/mg) 1000
CSFo = Oral Cancer Slope Factor (mg/kg/day chem spec
WC = Water Consumption 2

GCTL-NC RfDo x BW x RSC x CF / WC

GCTL = Groundwater Cleanup Target Level (ug/L)
RfDo = Oral Reference Dose (mg/kg/day) chem spec
RSC = Relative Source Contribution 0.2
CF = Conversion Factor (ug/mg) 1000
WC = Water Consumption 2

Parameter	FDEP CSFo	FDEP RfDo	GCTL-C	GCTL-N	RSL-C	RSL-N	Max GW	FDEP ILCR	FDEP HQ	EPA ILCR	EPA HQ
Manganese	NA	4.70E-02	NA	329	NA	320	231		7.0E-01		0.721875
TPH	NA	4.00E-02	NA	280	NA	NA	12000		4.3E+01		
BaPEq	7.3	NA	0.005	NA	0.0029	NA	0.2	4.2E-05		6.9E-05	
1-Methylnaphthalene	NA	4.00E-03	NA	28	0.97	460	12		4.3E-01	1.24E-05	0.026087
2-Methylnaphthalene	NA	4.00E-03	NA	28	NA	27	9.3		3.3E-01		0.344444
Naphthalene	NA	2.00E-02	NA	140	0.14	6.1	52		3.7E-01	0.000371	8.52459
1,1-Dichloroethane	NA	1.00E-01	NA	700	2.4	2900	56		8.0E-02	2.33E-05	0.01931
1,1-Dichloroethene	NA	5.00E-02	NA	350	NA	260	750		2.1E+00		2.884615
1,2-Dichloroethane	9.10E-02	3.00E-02	0.4	210	0.15	13	20	5.2E-05	9.5E-02	0.000133	1.538462
1,4-Dichlorobenzene	2.40E-02	3.00E-02	1.5	210	0.42	470	1.7	1.2E-06	8.1E-03	4.05E-06	0.003617
Benzene	5.50E-02	4.00E-03	0.6	28	0.39	29	1.1	1.7E-06	3.9E-02	2.82E-06	0.037931
cis-1,2-Dichloroethene	NA	1.00E-02	NA	70	NA	28	13		1.9E-01		0.464286
Ethylbenzene	NA	1.00E-01	NA	700	1.3	670	10		1.4E-02	7.69E-06	0.014925
Isopropylbenzene	NA	1.00E-01	NA	700	NA	390	3.5		5.0E-03		0.008974
Xylenes	NA	2.00E-01	NA	1400	NA	190	44		3.1E-02		0.231579
Tetrachloroethene	5.20E-02	1.00E-02	0.7	70	9.7	35	16	2.4E-05	2.3E-01	1.65E-06	0.457143
Trichloroethene	1.10E-02	6.00E-03	3.2	42	0.44	2.6	390	1.2E-04	9.3E+00	0.000886	150
Vinyl Chloride	7.20E-01	3.00E-03	0.0	21	0.015	36	0.7	1.4E-05	3.3E-02	4.67E-05	0.019444
							TOTAL	2.6E-04	5.7E+01	1.6E-03	1.7E+02

GCTL-C Carcinogenic FDEP Groundwater Cleanup Target Level (ug/L)
GCTL-NC Noncarcinogenic FDEP Groundwater Cleanup Target Level (ug/L)
RSL-C Carcinogenic EPA Tap Water Regional Screening Level (ug/L)
RSL-NC Noncarcinogenic EPA Tap Water Regional Screening Level (ug/L)
Max GW Maximum Detected Groundwater Concentratoin (ug/L)
FDEP ILCR FDEP-based Incremental Lifetime Cancer Risk Level = (Max GW * 1E-06)/GCTL-C
FDEP HQ FDEP-based Hazard Quotient = (Max GW / GCTL-NC)
EPA ILCR EPA-based Incremental Lifetime Cancer Risk Level = (Max GW * 1E-06)/RSL-C
EPA HQ EPA-based Hazard Quotient = (Max GW/RSL-NC)

VAPOR INTRUSION RISKS														
SITE 45 NAS JACKSONVILLE, JACKSONVILLE, FLORIDA														
Parameter	Maximum Groundwater Concentration	J-E Predicted Indoor Air Concentration	EC(Res-NC)	EC (Res-C)	EC (Ind-NC)	EC (Ind-C)	Res-NC	Res-C	Ind-NC	Ind-C	Res-HQ	Res-ILCR	Ind-HQ	Ind-ILCR
1,1-Dichloroethane	56	2.41E-01	2.31E-01	9.90E-02	5.50E-02	1.97E-02	NA	1.5	NA	7.7		6.60E-08		2.55E-09
1,1-Dichloroethene	750	8.64E+00	8.28E+00	3.55E+00	1.97E+00	7.05E-01	210	NA	880	NA	3.95E-02		2.24E-03	
1,2-Dichloroethane	20	3.31E-02	3.17E-02	1.36E-02	7.56E-03	2.70E-03	7.3	0.094	31	0.47	4.35E-03	1.45E-07	2.44E-04	5.74E-09
cis-1,2-Dichloroethene	13	4.97E-02	4.77E-02	2.04E-02	1.13E-02	4.05E-03	NA	NA	NA	NA				
Tetrachloroethene	16	1.12E-01	1.07E-01	4.60E-02	2.56E-02	9.13E-03	42	9.4	180	47	2.56E-03	4.90E-09	1.42E-04	1.94E-10
Trichloroethene	390	2.13E+00	2.04E+00	8.75E-01	4.86E-01	1.74E-01	2.1	0.43	8.8	3	9.73E-01	2.04E-06	5.53E-02	5.79E-08
Vinyl Chloride	0.7	9.80E-03	9.40E-03	4.03E-03	2.24E-03	7.99E-04	100	0.16	440	2.8	9.40E-05	2.52E-08	5.09E-06	2.85E-10
Naphthalene	52	4.24E-02	4.07E-02	1.74E-02	9.68E-03	3.46E-03	3.1	0.072	13	0.36	1.31E-02	2.42E-07	7.45E-04	9.60E-09
1-Methylnaphthalene	12	9.58E-03	9.19E-03	3.94E-03	2.19E-03	7.81E-04	NA	NA	NA	NA				
2-Methylnaphthalene	9.3	7.42E-03	7.12E-03	3.05E-03	1.69E-03	6.05E-04	NA	NA	NA	NA				
1,4-Dichlorobenzene	1.7	3.95E-03	3.79E-03	1.62E-03	9.02E-04	3.22E-04	830	0.22	3500	1.1	4.56E-06	7.38E-09	2.58E-07	2.93E-10
Benzene	1.1	4.68E-03	4.49E-03	1.92E-03	1.07E-03	3.82E-04	31	0.31	130	1.6	1.45E-04	6.20E-09	8.22E-06	2.39E-10
Ethylbenzene	10	4.23E-02	4.06E-02	1.74E-02	9.66E-03	3.45E-03	1000	0.97	4400	4.9	4.06E-05	1.79E-08	2.19E-06	7.04E-10
Isopropylbenzene	3.5	1.82E-02	1.75E-02	7.48E-03	4.16E-03	1.48E-03	420	NA	1800	NA	4.16E-05		2.31E-06	
Xylenes	44	1.92E-01	1.84E-01	7.89E-02	4.38E-02	1.57E-02	100	NA	440	NA	1.84E-03		9.96E-05	
											1.0E+00	**2.5E-06**	**5.9E-02**	**7.8E-08**
	All concentrations are in units of ug/m3.													
	EC(Res-NC)	Noncarcinogenic Residential Exposure Concentration				= Air Conc *(24 hr/day *350 day/yr *30 yr) / (30 yr * 365 day/yr * 24 hr/day) = 0.96*Air Conc								
	EC(Res-C)	Carcinogenic Residential Exposure Concentration				= Air Conc *(24 hr/day *350 day/yr *30 yr) / (70 yr * 365 day/yr * 24 hr/day) = 0.41*Air Conc								
	EC(Ind-NC)	Noncarcinogenic Industrial Exposure Concentration				= Air Conc *(8 hr/day *250 day/yr *25 yr) / (25 yr * 365 day/yr * 24 hr/day) = 0.23*Air Conc								
	EC(Ind-C)	Carcinogenic Industrial Exposure Concentration				= Air Conc *(8 hr/day *250 day/yr *25 yr) / (70 yr * 365 day/yr * 24 hr/day) = 0.0815*Air Conc								
	Res-NC	EPA Noncarcinogenic Residential Air Regional Screening Level												
	Res-C	EPA Carcinogenic Residential Air Regional Screening level												
	Ind-NC	EPA Noncarcinogenic Industrial Air Regional Screening Level												
	Ind-C	EPA Carcinogenic Industrial Air Regional Screening Level												
	Res-HQ	Residential Hazard Quotient				= EC(Res-NC)/Res-NC								
	Res-ILCR	Residential Incremental Lifetime Cancer Risk				= EC(Res-C)*1E-06/Res-C								
	Ind-HQ	Industrial Hazard Quotient				= EC(Ind-NC)/Ind-NC								
	Ind-ILCR	Industrial Incremental Lifetime Cancer Risk				= EC(Ind-C)*1E-06/Ind-C								